

**Implementing the New Zealand
Curriculum: Understandings and
experiences from three urban
primary schools.**

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the requirements of the
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Abstract

The introduction of the New Zealand Curriculum (Ministry of Education, 2007) provided both opportunities and challenges to schools. As teaching and learning has continued to evolve and develop in accordance with new research, technological innovations and changing school populations so too has curriculum. The curriculum was designed to initiate a transformation in values, principles, and key competencies that are needed for learners to successfully participate in schooling and society. The New Zealand government introduced a new curriculum in 2007 with the intention of it being implemented into schools by 2010. The content of curriculum was guided by pedagogical understandings supported by research. This included an emphasis on schools having ownership of their curriculum. The 2007 curriculum also had a larger focus on educating the whole child not just on learning objectives.

This research investigates how three schools have undertaken the implementation of the New Zealand Curriculum (2007), and the effects this implementation has had on teaching and learning. Using semi-structured interviews, the descriptive narratives of each teacher's and school's experience and understanding has been explored. The results indicated that the participating schools are embracing the new curriculum and that changes made due to professional development, teacher collaboration and curriculum implementation are directly affecting learning for children in a positive way.

Key Words

Curriculum, New Zealand curriculum, professional development, change management, teaching and learning, education, 21st century teaching, school leadership, curriculum change, consultation, pedagogy, andragogy.

Chapter 1

Introduction

New Zealand has had a national curriculum since the introduction of the Education Act in 1877. Throughout the first half of last century there was little change in the theoretical orientations underpinning teaching and learning (O'Neill, Clark, & Openshaw, 2004). The industrial model and theories favouring a behaviourist approach to learning were predominant in New Zealand education at this time. This model continued through the first half of last century, but from the late 1960s theories such as constructivism started to challenge educators' thinking in New Zealand. New understandings of how children learn and create knowledge, including socio-cultural theory and cultural historical activity theory (Claxton, 2002), were now becoming more evident in teaching and learning programmes, and these impacted in the development of curriculum. As the pace of change throughout the world continues to increase, so will educators understanding of the needs and characteristics of learners in the 21st century. The rapidly changing social world, shaped by the spread of new technologies, multicultural and linguistic diversity, demands pedagogical shifts to accommodate the gaps between real-world uses of technology and learning in the classroom. What knowledge is, and how it is formed, is also being challenged (Gilbert, 2005). As educators' understanding of knowledge has changed, so has the need to redevelop curriculum in order to prepare children for life in the 21st century. This research focuses on the introduction of a new curriculum that attempts to address the changes to our social world.

A considerable body of research and literature exists supporting the need for further curriculum change (Claxton, 2002; Gilbert, 2005; Ministry of Education, n.d). The Ministry of Education investigated possible new curriculum initiatives in response to many teachers' perceptions of the 1990's curriculum as cumbersome and over prescriptive. The result of these investigations was the impetus behind the development of the new New Zealand Curriculum (2007).

While aspects of the current New Zealand Curriculum [NZC] (2007) relate to the 1990's curriculum, it adds further emphasis to pedagogy, and challenges the way educators think about teaching and learning. The new curriculum document emphasizes the need for schools to formulate their own curriculum, to meet the needs of the children in their community, while using the New Zealand Curriculum as a framework (Ministry of Education, 2007).

There are many factors that help in the development of an effective school curriculum. The Ministry of Education (2007) suggests the school's vision, values and principles should form the foundation of the school's curriculum. The vision and values are formed from beliefs held by teachers and the community about effective teaching and learning, and how these impact on education in the school, while the principles are documented in the NZC (2007). The vision and values adopted by each school may affect the pedagogy adopted by the school, including assessment procedures, planning, and how learning areas are catered for. Such pedagogical decisions should match up with the school's vision and values and lead to improved learning outcomes for children.

By February 2010 all New Zealand state and integrated schools were expected to have implemented the New Zealand Curriculum (2007). It appears however that schools are currently still at different stages of the implementation process and are using different sections of the document as a starting point and taking different pathways to implement the curriculum. The aim of this research is to see how three schools have put the new curriculum into practice thus far, find out their perspectives on the new document, the implications of implementation, the effect the implementation has had on teaching and learning, and participants understanding of the principles that underpin the curriculum. The research considers the curriculum's "principles" and how, and to what extent, these principles are guiding the implementation of the curriculum in the participating schools. The curriculum document states that *the principles* "should underpin all school decision making" and should be seen as the "foundation of curriculum decision making" (Ministry of Education, 2007, p. 9). In short, the document states that the NZC principles should be used as the foundation of curriculum change and development.

I focused my research on three city primary schools and collected data by interviewing the principal, a staff member and a member of the Board of Trustees from each school. The aim of the research was to obtain participants' understandings of the new curriculum document, how it impacts on them, the school and children's learning, and where they see themselves and the school in the change process.

Significance of this study

There is no shortage of literature on how schools should or could be implementing the new curriculum. However, as the curriculum did not need to be fully implemented until February 2010 there have been few studies on how New Zealand schools actually implemented the new curriculum and how in particular they are using the principles outlined in the curriculum document (Ministry of Education, 2007). As implementation of the revised curriculum is a compulsory Ministry of Education initiative affecting all schools, this study is timely and highly pertinent. It is hoped that the results of this study will provide: illustrations, ideas and suggestions of how schools have actually implemented the curriculum, examples of changes in teaching and learning created as a result of curriculum development, illustrations of how the guiding principles have been used, examples of how schools have consulted with their communities, a general overview of how the new curriculum has been adopted to work in each individual school. This study potentially could make a valuable contribution to the growing body of research being undertaken around this exciting change in education.

Context for research

I have been classroom teaching for the past nine years and have taught year two through to year six students. I have taught in two urban schools in New Zealand. I am currently teaching at a school with approximately 500 children. I am a syndicate leader, teacher in charge of music and performing arts, and a curriculum leader. In my curriculum development leadership role, I have been working with the principal and staff developing our school's curriculum. This research has influenced my input into our school's curriculum development, and increased my theoretical understanding of current practices, as well as providing practical examples from the participating schools.

I started post-graduate study in 2005 completing my Post Graduate Diploma in Educational Leadership in 2008. During this time I was fortunate enough to receive a Ministry of Education study leave award for 16 weeks. For the past two years I have been teaching full time and completing this research.

Definition of Terms

Principal: A New Zealand registered teacher, employed to lead and manage a school.

Teacher: A person registered to teach in New Zealand schools.

Board of Trustees member: A community member elected to the Board of Trustees through a democratic voting process held every three years.

National Curriculum: A curriculum that is centrally controlled by government and must be used in all state and state-integrated schools.

School Curriculum: A document based on the national curriculum, which shows how a particular school will meet the needs of the children in that community.

Front part of the NZC Refers to the following sections: values, principles, key competencies, learning area statements, pedagogy.

Unpacking the curriculum: Analyzing and understanding the curriculum

Acronyms

NZC: New Zealand Curriculum,

BoT: Board of Trustees

ICT: Information and communication technology

Chapter 2

Literature Review

This chapter will review some of the current literature relating to this research. The topics discussed and reviewed include the history of education in New Zealand, development of learning theories, the New Zealand Curriculum (2007) and related documentation, inquiry learning, managing curriculum change, and lastly the establishment of professional learning communities.

History of education and curriculum in New Zealand

Public education (primary schooling) was made available to all New Zealand children with the introduction of the Education Act in 1877. At this time, most children left school by 12 years of age and entered the labour market. The politicians and other influential people, at the time, believed that by introducing a “public” education system they could create an “obedient, disciplined and industrious labour force” (O’Neill et al., 2004, p. 28) and could manage the fear of public disorder and criminality intruding on colonial life. The people with power, mainly upper-middle class, landowners, professionals and merchants, saw public education as a way of giving the masses a rounded education that would increase New Zealand’s economic prosperity through the labour market. They also believed that compulsory education could be used as a vehicle to promote social change and control. The four main arguments put forward for the introduction of the Education Act including “social control and the reduction of the crime rate; the production of a discerning electorate; the enhancement of economic productivity; and individuals’ rights to education” (Harker, 1990, p. 29).

The 1877 Education Act and national curriculum sought to give a uniform education to all New Zealand children. Following the act, schools were inspected and reported on, to ensure that “uniform standards and ‘appropriate’ knowledge was being taught” (O’Neill et al., 2004, p. 28). The national curriculum was seen as a form of control over what could and couldn’t be taught.

At this time, agriculture and industry were still developing in New Zealand and were the main employers. The first national curriculum complemented this and included: reading writing, arithmetic, English grammar and composition, history and geography, elementary science and drawing, object lessons and vocal music. Boys participated in military drill whilst girls were taught sewing and needlework in what O'Neill et al. (2004) referred to as 'the principles of domestic economy'. This continued until the middle of the 20th Century.

During this period, the uptake of public education was rapid and educational qualifications became minimum requirements for many jobs. Many parents encouraged their children to gain as many school qualifications as possible as it was seen as a way of improving job opportunities and social standing (Harker, 1990). Thus, the first national curriculum was very much geared towards the industrial age.

In 1903 secondary education was made available to all those who passed the Proficiency Examinations. Before this date, secondary education was only offered privately. However, after 1903 secondary education still predominantly remained the domain of the wealthy who were training for professional occupations. Secondary curriculum reform in 1940 saw more children partake, in secondary education, when agricultural, technical and eventually co-educational secondary schools were established. These schools tended to draw students from specific class groups (O'Neill et al., 2004).

The primary curriculum was first revised in 1904 and included more moral instruction. Values, beliefs and social practices were imparted to students and social improvement became an educational goal. These values were those of the dominant culture, namely white, upper-middle class, men (Harker, 1990).

1913 saw more curriculum revision. From this time, until 1929, curriculum referred to as syllabuses, were reviewed and revised separately. In 1929 a new 223 page syllabus, including all learning areas, was published. In later years, teachers reading this syllabus described it as having a liberal spirit, however because of teaching styles, the depression

and war, its potential was not fully realized. The rolling review system, which was a system where each learning area was reviewed and revised in a planned cycle, was reintroduced in 1943 and continued through until 1990. During this period school syllabuses were more general and open and teachers could choose from the suggestions offered. Also during this era, teachers, the Department of Education, subject committees, training colleges and schools were all included in curriculum revision. The process was cumbersome and time consuming but did promote input and buy-in from all parties (O'Neill et al., 2004).

Until 1989 all education in New Zealand was centrally controlled by the government's Education Department. Through the 1980s many changes took place in society, one being a rising unemployment rate. The realisation that the labour market was changing and that employment was no longer guaranteed, combined with many students staying at school longer, prompted several investigations and reviews into New Zealand's education system. According to Fancy (2004) the main issues/concerns about education which prompted the administration reviews were that:

1. The existing education administration was over centralised, piecemeal and cumbersome.
2. The education system needed to respond more quickly to the changing economy and labour market and be more attuned to the influence of students, communities and employers.
3. The Department of Education was too intertwined with the profession to be a critic and driver of change.

The reports from these reviews suggested that the education system would not be able to meet the needs of the changing society. One of these reports, *Administering for Excellence: Effective Administration in Education*, also known as the Picot Report, was extremely influential in the development of the 1989 education reforms, known as "Tomorrow's Schools". Picot suggested that giving more control to the school and school community would better meet the needs of individual students and the community as a whole (Snook, 1989). The education reforms in 1989 were mainly administrative and

removed a layer of departmental administration, giving more responsibility to schools and Boards of Trustees (Fancy, 2004).

As from 1990 schools became self-managing, meaning that decision-making was devolved from central agencies to the schools themselves. The idea was that the decision-making would be moved closer to the end-providers who were seen as having a better knowledge of what the community wanted and needed (O'Sullivan, 1998). Although curriculum was still mandated by the Ministry of Education and passed down to schools, schools had more flexibility in the way that they implemented the curriculum.

The 1990's incorporated another round of curriculum review with the New Zealand Curriculum Framework being published in 1993. The maths and science curricula were revised, after extensive consultation with teachers and other educators, before the framework was published and the other six curricula after 1993. The final curriculum area to be revised was the Arts curriculum in 1999 (O'Neill et al., 2004).

Further technological developments and social change, as well as teachers' views that the curriculum over prescribed, necessitated further curriculum review, which led to the current 2007 curriculum. The NZC (2007) focuses not only on achievement objectives but also the needs of learners in the contemporary world. This includes the development and inclusion of the 'key competencies': thinking; using language, symbols and texts; managing self; relating to others; and participating and contributing. These competencies are developed in a social context and seen as more complex than skills. They are described as "capabilities for living and lifelong learning" (Ministry of Education, 2007, p.12).

Learning Theories

Learning takes effort and does not just happen in isolation. As Stoll, Fink & Earl (2003) explain, "Learning is not passive and brains are not receptacles waiting to be filled with information. Learning is an active, dynamic process that requires effort and energy that is both individual and social" (p. 24).

Throughout the history of the New Zealand education system different theories have influenced curriculum, teaching and learning. These include, but are not exclusive to: behaviourism, constructivism, and social-constructivism.

Behaviourism was a theory held in high regard when the first curriculum was introduced to New Zealand in 1877. Behaviourist theorists such as Locke, Skinner and Brunner emphasised structure, teachers imparting knowledge and children repeating tasks to gain proficiency as the best way of teaching children. They believed rote learning, repetition, and discipline, helped children gain new skills and knowledge. This theory and style of teaching fitted the industrial age, where schools were seen as places to produce good citizens who could contribute to society by entering the labour market and taking up jobs such as farming and factory work (Stoll et al., 2003). As society changed further learning theories were developed influencing teaching and curriculum development in New Zealand.

The theories of Piaget and Vygotsky had, and still have, a major influence on the way educators understand teaching and learning (Berk & Winsler, 1995; Dockett & Perry, 1996). Piaget was a constructivist theorist with social-constructivist theory being mainly accredited to Vygotsky. Both theorists saw the child as a thinking, dynamic being, however, Piaget believed that development and learning were separate, with the child needing to be developmentally ready to take instruction. Vygotsky believed that learning leads development because as the child learns from a more capable peer their development increases (Berk & Winsler, 1995). In a Piaget-based classroom, with a focus on the child's developmental ability to learn, new skills are not taught until the child shows a readiness to learn. In a Vygotsky-based classroom the child is taught by instruction by the teacher or a more capable peer. This helps the child move through what Vygotsky calls the zone of proximal development (Dockett & Perry, 1996). The zone of proximal development is the difference between what a child can achieve independently and what he or she can achieve in conjunction with another person. This theory says that the child will be able to learn from a more able peer or adult as that

person helps to explain the thinking that goes into solving the problem, breaking it down step by step. As a result, the child acquires new knowledge and increases their mental development by thinking about their thinking (metacognition). Vygotsky stated that “What a child can do in cooperation today he can do alone tomorrow” (Berk & Winsler, 1995, p. 105).

Social-constructivism takes into account the large impact the community and surrounding environment has on the way children see the world and learn, as well as learning leading development. A further theory developed from social-constructivism known as Cultural Historical Activity Theory (CHAT) looks at cultures, communities and societies and how these impact on what and how we learn. Claxton (2002) states that “Cultures play a large role in shaping the development of individual minds” (p. 3). He goes on to explain that society’s values and beliefs, ways of knowing, and interactions all impact on how and what we learn, and influence how educators teach (Claxton, 2002).

Contemporary teaching and learning theories are closely related to social-constructivism, valuing community, creativity, and realizing that the world is changing at an ever increasing pace. The ‘knowledge age’ is upon us and ways of being and knowing are continuing to change and develop. Gilbert (2005) explains that the concept of knowledge is changing from that of a *noun* where knowledge is seen as a thing that can be added to, to “increase knowledge”, to a *verb* where knowledge is something we do, or skills we are able to transfer to new and different situation in order to ‘know’ or understand new things (Gilbert, 2005). Ideas and knowledge are constantly changing and often becoming more complex. Claxton (2008) believes that one of the best things we can do for our children is to create enthusiastic learners who will be able to function in this new world.

Evolving pedagogies in the 21st century are not about ignoring the past and reducing the focus on traditional subjects, but rather a new way of approaching teaching and learning that will give children the ability to interact, develop, learn and thrive in our dynamic world. In order for schools and teachers to adapt education for the 21st century, they need to change more than just their practice. They need to change the way they understand and

think about teaching and learning and what is important for the current generation of children.

Shaw (2004) describes our current generation of school children as “natives” in the new technological world. The way we interact and communicate with one another has changed dramatically in the past 10 years, and will continue to change at an increasing rate. Children are now able to communicate and retrieve information from all over the world. Children can, and do, participate in the world outside of school, where their actions make a difference. Schools need to become part of the global community and not be separate from it. Numeracy and literacy skills will continue to be important for learners to function in this new world, however, those who are only numerate and literate will be the new “poor” (Shaw, 2004). Bull and Anstey (2010) reinforce this in the following statement. “...our pedagogy will need to change in order to equip students with the knowledge, skills, processes and attitudes they will need to take control of their lives in current and future societies and to cope with continual change.” (p. 8).

The New Zealand Curriculum (2007) and related documentation

There has been a large amount of information given to schools on how to implement the new New Zealand curriculum. This information has been shared with schools, via the Ministry of Education, through information packs, seminars and the New Zealand Curriculum website <http://nzcurriculum.tki.org.nz/>. The website has digital stories, online help, a resource bank, the curriculum document, discussion forums and many other links, and information relating to the new curriculum and its implementation. This website is an example of a resource for 21st century learning, as principals and staff can go and get information as they need it to help them with implementation.

The new curriculum has two sections. The first section of the document (Ministry of Education 2007. p. 1-44) is concerned with teaching and learning. It examines values and beliefs about education, and outlines the principles of the curriculum, pedagogy, vision, values, and key competencies. The second half of the curriculum is concerned with

learning areas. It has achievement objectives for each learning area, which need to be incorporated into teaching and learning programmes. The document explains,

“The national curriculum provides the framework and common direction for all schools, regardless of type, size, or location. It gives schools the scope, flexibility and authority they need to design and shape their curriculum so that teaching and learning is meaningful and beneficial to their particular communities of students” (Ministry of Education, 2007, P. 37).

This statement encourages schools to develop and implement curriculums that reflect the needs of learners and their community. The *principles* outlined in the document are seen as the “foundations of curriculum decision making”, (Ministry of Education, 2007. P. 9), and should be used and referred to when developing localized school curriculum. The eight *principles* of the New Zealand curriculum are: high expectations, learning to learn, Treaty of Waitangi, community engagement, cultural diversity, coherence, inclusion and future focus. These *principles* “should underpin all school decision making” (Ministry of Education, 2007, p. 9). The *principles* are similar to the curriculum’s *values* which are: excellence; innovation, inquiry, and curiosity; diversity, equity; community and participation; ecological sustainability; and integrity (Ministry of Education, 2007, p. 10). The *principles* and *values* although similar serve different functions. “The principles relate to how curriculum is formalized in a school; they are particularly relevant to the processes of planning, prioritizing, and review. The values are part of the everyday curriculum - encouraged, modelled and explored” (Ministry of Education, 2007, p. 9).

The *vision* of the New Zealand curriculum (2007) is to create students who are “confident, connected, actively involved, lifelong learners” (p. 8). One teaching and learning approach to meet this vision, along with the curriculum’s value of innovation, inquiry, and curiosity, is that of inquiry learning.

Inquiry learning

As Friesen defines (as cited in Herrick, 2009) “Inquiry-based learning is a constructivist approach in which students have ownership of their learning. It starts with exploration and questioning and leads to investigation into a worthy question, issue, problem or idea. It involves asking questions, gathering and analyzing information, generating solutions, making decisions, justifying conclusions and taking action” (p. 4).

There are many different models of inquiry learning, and what Prince and Felder (2006) refer to as ‘inductive’ approaches to teaching and learning. These ‘inductive’ approaches include: inquiry learning, problem-based learning, project based learning, discovery learning, case-based learning, and just-in-time teaching. These approaches are often individualized to suit a particular school. However the underlying features are the same.

Prince and Felder, (2006), explain the common features of inductive approaches are that:

- They are all learner-centred (aka student centred), meaning that they impose more responsibility on students for their own learning than the traditional lecture-based deductive approach.
- They are all supported by research findings that show that students learn by fitting new information into existing cognitive structures and are unlikely to learn if the information has few apparent connections to what they already know and believe.
- They can all be characterized as constructivist methods, building on the widely accepted principle that students construct their own version of reality rather than simply absorbing versions presented by their teachers.
- The methods almost always involve students discussing and solving problems in class (active learning), with much of the work in and out of class being done by students working in groups (collaborative or cooperative learning)(p. 124).

The approaches listed above align with, and complement, the vision and pedagogical ideas outline in the New Zealand Curriculum (2007). All three of the case study schools in this research have used an inquiry learning model.

The NZC (2007) describes the need for teachers to be reflective about their teaching practice. The curriculum refers to this as ‘teaching as inquiry’ and suggests that, “effective pedagogy requires that teachers inquire into the impact of their teaching on their students” (p. 35). Teaching as inquiry is described as a cyclic process where teachers continually reflect on the impact their teaching is having on the children in their charge. As this cycle continues, teachers modify or change their practice when necessary. This allows them to continually improve their own teaching and, as a result of this, improve outcomes for children. In order for teachers to ‘teach as inquiry’, and for schools to implement the new NZC, principals and school leaders need to manage change.

Managing curriculum change

Principals and school leaders constantly need to manage change. Changes, such as, staff, students, the school environment, funding, and curriculum are but a few examples. Change management can be defined as 'the coordination of a structured period of transition from situation A to situation B in order to achieve lasting change within an organization'. (<http://www.change-management-coach.com/definition-of-change-management.html>)

Effective change management and leadership are critical factors for school improvement. Southworth (2002) describes strong, effective leadership as being “the major force for transforming schools and improving them” (p. 8).

Throughout the 1990’s, in New Zealand schools, the principal’s role was generally that of a generic manager (Robinson, 2004). The role of principal as educational leader or leader of teaching and learning had diminished as principals became familiar with the new school environment brought about by ‘Tomorrow’s Schools’ (Fancy, 2004). With the introduction of the 2007 New Zealand curriculum school leaders have become more focused on their role as instructional leaders or leaders of teaching and learning, which has enabled them to move their schools through the curriculum change process (Fullan, 2003).

As education moves away from an industrial model, new ways of thinking about what education involves have emerged. As Gilbert (2005), Claxton (2008) and Robinson (2009) discuss at length, in order for education to move into the 21st century, educators will need a complete mind shift in what they think teaching and learning is and what it is for. Gilbert (2005) suggests that:

“new and very different ways of thinking are challenging and replacing long-standing and highly significant ways of thinking. These changes do not represent the usual process of adding to and improving existing ideas: rather they represent a paradigm shift – a radical break with the past that requires us to stop and completely rethink much of what we do” (p. 10).

Robinson (2009) discusses the need to enhance and encourage creativity in children in order for them to be innovative, free-thinking adults who are passionate, life-long learners. While Claxton (2008) states that:

“the purpose of education is to prepare young people for the future. Schools should be helping young people to develop the capacities they need to thrive. What they need and want, is the confidence to talk to strangers, to try things out, to handle tricky situations, to stand up for themselves, to ask for help, and to think new thoughts” (p. vi)

These ideas present a challenge to school leaders and all educators if schooling in New Zealand is to change to meet the needs of the present generation. Changing ways of thinking and doing is a complex undertaking for both the person leading the change and the people going through the change. The most difficult part of managing change is managing the people within the change process. Resistance to change is a real issue that needs to be considered (Nilakant & Ramnarayan, 2006).

Change generally increases anxiety amongst those in the change process. This anxiety along with staff not understanding or accepting the need to change can, and often does,

cause resistance. This resistance needs to be carefully managed. Nilakant and Ramnarayan (2006) suggest that in order for effective change to take place, staff need to have a balance of the known and unknown, with the unknown being increased over time.

Renihan (1998) (Appendix 1) suggests that there are seven preconditions needed for effective change to take place. They are:

- Vision - staff need to understand and see what they are aiming to do
- Attainable objectives - the vision must be realistic and reachable
- Skills - staff have to been given the skills to change
- Incentives for making the change - staff seeing the benefits of the change
- Resources - supplied in order to prevent barriers
- Action plan - to show direction and timeline
- Monitoring and evaluation - to measure change progress

Renihan believes that if one of these elements is missing then the change process will be ineffective.

Managing change, as will be shown in this study, is a complex process that takes planning, time and effort (Nilakant & Ramnarayan, 2006). Developing a professional learning community, within a school is one way to support and enable curriculum change to take place.

Professional learning communities

Schools are no longer institutions where the students are the only learners. Many schools are working towards having staff that are part of a professional learning community, making the school a learning organization. DuFour, DuFour and Eaker (2008) describe a learning community as “educators committed to working collaboratively in ongoing processes of collective inquiry and action research to achieve better results for the students they serve” (p. 14). In other words, staff work and learn together, focusing on student outcomes and learning. Bowgren and Sever (2010) discuss the need for learning organizations to have differentiated professional development programmes for staff,

where groups of staff can work and learn together on areas that are appropriate for their development, and which support the schools mission.

Kaagan and Headley (2010) discuss professional conversations as being at the centre of professional learning communities. They also discuss the importance of making small or incremental changes in practice or thinking, and having the freedom to try new ideas or methods out and then to discuss them with colleagues. This leads to, and fosters, reflective practice or learning through inquiry.

Through the fostering of a collaborative learning environment a school's culture will change, and as a consequence, conditions needed for improving and changing teaching, learning and ideas on education are created (Bowgren & Sever, 2010). A positive school culture is vital for a collaborative learning community to work. Developing a positive school culture and learning community requires careful planning and needs to be developed with staff, while being strongly lead by senior school leaders (Kaagan and Headley, 2010).

The work of Timperley, Wilson, Barrar and Fung, (Ministry of Education, 2007) found that there were several definable qualities of professional learning communities that promote both teacher and student learning.

“These include a focus on opportunities to process new understandings and their implications for teaching, the introduction of new perspectives and challenging of problematic beliefs, and an unrelenting focus on the impact of teaching on student learning. Simply giving teachers time to talk was not enough to promote either their own learning or that of their students” (Ministry of Education, 2007, p. 205)

A key component of a collaborative learning community is that learning and development of ideas and practices is happening. Collaborative learning communities are predominantly about the adults in the school, therefore it is important to have an understanding of how adults learn. Pedagogy is the term used when referring to children

and how they learn, andragogy is the term used when referring to adult learning. Many of the conditions for both pedagogy and andragogy are the same but there are also some differences, which should be understood (Knowles, 1990).

Adults and children need certain conditions in order to learn. Knowles (1990) uses the term andragogy to explain and define the way in which, and the conditions needed for, adults to learn. An andragogical learning model has many of the same conditions required for children to learn. These include; purpose, demonstration, motivation and assistance. An andragogical model also takes into account an adults need to relate learning to prior experiences. Knowles (1990) also identified different characteristics of adult learners that influence their learning.

Bowgren and Sever (2010) explain Knowles' findings on the characteristics of adult learners as follows:

- Adults bring a great many learning experiences to the learning environment.
- Adults expect to have a high degree of influence on what they learn and the way they will learn.
- Adults need to be encouraged to actively participate in designing and implementing the learning programme
- Adults need to be able to see applications for the new learning.
- Adults expect to have high degrees of influence on how learning will be evaluated.
- Adults expect their responses to be acted upon when they are asked for feedback on their learning progress. (Bowgren & Sever, 2010, p. 19).

These characteristic and subtle differences in learning styles between a pedagogical and andragogical model of learning need to be considered when developing professional development programmes for the adults in a collaborative learning community (Bowgren & Sever, 2010).

Through this chapter I have reviewed the literature and given a brief history of education and curriculum development in New Zealand, since the introduction of the 1877 Education Act. I have reviewed literature relating to learning theories including behaviourism, constructivism, and social constructivism. The New Zealand curriculum (2007) and relating documentation has also been reviewed as well as literature on inquiry learning, managing curriculum change, and developing professional learning communities. This literature review has given an overview of current thinking and will act as a base for this research. The next chapter will outline and justify the selected methodology, research questions, methods and ethical considerations for this research.

Chapter 3

Methodology

This chapter outlines the research design used for this study. Initially it explains qualitative research and case study methodology before outlining the major research questions and the methods used for selecting participants and collecting data. This section also describes how data was analyzed, and how trustworthiness of data has been considered. Finally the limitations of the study are discussed.

Interpretive/constructivist epistemological paradigm

As a researcher I see the world using an interpretive/constructivist paradigm, in order to help understand "the world of human experience" (Cohen & Manion, 1994, p. 36). This paradigm is "oriented to the production of reconstructed understanding of the social world" (Denzin, & Lincoln, 2005, p. 183). Such an approach sees reality as socially constructed (Mertens, 2005), which aligns with the research methods used in this study to gather the participants' understandings of curriculum implementation. Using an interpretive/constructivist approach also allows me to take into account my background and how this may influence my interpretation of the data. As a researcher, I constructed understandings by listening to peoples stories and talking with them.

Qualitative Research

For this research I used a qualitative case study approach in three schools. The use of qualitative research methodology enabled me to get detailed participant stories, showing how the new curriculum was being implemented in their schools and the implications for teaching and learning. Educational research is well suited to qualitative methodology, as qualitative research provides rich illustrations of real life events (Cresswell, 2003). Qualitative research invites holistic description of all that goes on in a particular activity or situation, giving a full and deep picture of an actual event or situation (Fraenkel & Wallen, 2009). Qualitative methodology also allows flexibility with design where ideas emerge as the study progresses. This form of research allows the researcher to triangulate

information from different sources and change or ask new questions to deepen understanding (Fraenkel & Wallen, 2009).

Opponents of qualitative methodology argue that there is too much room for researcher bias, sample sizes are too small to give a clear picture of a situation with which generalizations can be made and that qualitative research is not standardized enough to give valid, reliable data (Denzin & Lincoln, 2005). These opponents are generally using a positivist paradigm to view research. In the limitations section of this research, I have identified researcher bias, sample size and an inability to make generalization as limitations of this study. As a qualitative researcher I do not want 'standardized' data as it would not give me the rich description required to understand implementation of the NZC (2007).

Using a case study approach in this research project I collected rich descriptions that illustrate how schools and individuals narrate their implementation of the New Zealand curriculum, and the impact on teaching and learning.

Case Study

For this qualitative study I selected a case study approach. According to Yin, a case study is "an empirical inquiry that investigates a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident" (Yin, 1989, p. 23). Gay, Mills and Airasian (2006) simply state that a case study is "the in-depth investigation of one unit" (p. 595). Case studies are widely used in qualitative research. They focus on an individual or group, and provide rich detail about that individual or groups experience. Case study research only attempts to make conclusions about the participants in their specific context. Case study research does not look for generalizable information, but rather focuses on deep exploration and description of an individual or group (Gay et al., 2006).

This study uses a multiple case study approach. There are three case schools, each with three participants. By using a multiple case study approach (Fraenkel & Wallen, 2009), I

developed a picture of how schools understand the NZC, what practical steps they have taken to implement the NZC, and the implications for teaching and learning.

Major Research Question

What are primary schools' understandings and experiences of implementing the New Zealand curriculum (2007)?

I will use the case study of three urban primary schools to answer this question.

The data analysis for this research question was informed by the following questions:

1. *Why is a new curriculum needed?*
2. *What are the stakeholders' understandings of the principles outlined in the new curriculum? How have these understandings guided individual school curriculum development?*
3. *How have participating schools implemented the NZC?*
4. *What effect has the implementation had on teaching and learning?*

Method

Selection of participants

For this study I chose to use purposive sampling to select schools. Purposive sampling is where the samples are deliberately chosen by the researcher for a particular reason or purpose (Gay et al., 2006). In selecting participant schools critical sampling was also considered. Creswell (2008) describes a critical sample as a case that illustrates 'dramatically' the situation. The aim was to use a critical sample of schools that were likely to provide examples of good practice (Fraenkel & Wallen, 2009).

For this study, potential case schools were selected after meeting the criteria of:

- being a decile 8, 9, or 10 school.
- having a roll of 200 or more
- being on target to meet NZC implementation by 2010.

This criteria was set to match the school I am currently working in, as I wanted to use the data collected to help inform curriculum development in my current school, as well as provide information that would be useful for other practitioners, researchers and policy makers.

After I had selected the participating schools, the principal selected the participants, within each case school. In each of the three schools I conducted interviews with the principal, a teaching staff member and a member of the Board of Trustees. This resulted in a total of nine interviews, which were recorded and transcribed. The intention was to gain descriptive accounts of each case school and compare experiences within schools and across schools.

Teacher participants were selected on the criteria of: being an experienced teacher, not being in the senior management team, and not being directly involved with leading curriculum development in the school. This criteria was used with the intention of finding out what was happening with curriculum implementation in classrooms, at the ‘teacher’ level. The BoT member was selected by the principal, based on availability to be interviewed, and those seen by the principal as having the best understanding of curriculum.

Semi-Structured Interview

To gather data for this research, I conducted nine semi-structured interviews, with three participants from each of the three schools. Opie (2004) explains that semi-structured interviews are a flexible version of a structured interview where the interviewee’s responses can be expanded upon and where the interviewer is able to probe for more information. Such interviews are well suited to giving a deep understanding of each participant’s understanding and, in the case of this study, to get their perception of the implementation of the NZC and resulting changes in their school. Kvale (1996) describes a semi-structured interview as giving the interviewees the freedom to raise and focus on the dimensions they think are important, while allowing the interviewer the opportunity to ensure the interview remains focused on the topic. This was an important aspect of the interviews as many participants had particular ideas and opinions they wanted to express

in more detail. In the case of this study semi-structured interviews gave me the flexibility to ask further questions to clarify understanding, and to get rich data that told a balanced story. At the beginning of each principal's interview I also collected key demographic information on the school.

In preparation for the semi-structured interviews I piloted my interview questions with a principal and a teaching staff member who were not participating in the final case study. This was done to check that the interview questions were clear and the data gathered from them was useful in answering the research question. This trialing resulted in minor changes being made to the interview schedule, and confirmed that the questions focused on key issues, while being open enough to provide the rich information necessary to answer the research questions.

Data Collection and Analysis

Interviews were conducted at a time and place suitable to the interviewees (see appendix 6). This was generally at the case school. Eight of the nine interviews were conducted in term four 2009 with the final interview being conducted in term one 2010. All interviews were recorded on my computer using Garageband (www.apple.com/ilife/garageband/) recording software, and lasted between 15 and 25 minutes each. The interviews were then transcribed.

While transcribing interviews, I started to formulate pertinent categories to facilitate the initial organization of the data. These categories were: perspectives on the revised curriculum, the curriculum implementation process, NZC principles, NZC implementation challenges, and effects on teaching and learning. These themes were used to analyse and sort data for the results section. Lodico, Spaulding and Voegtler (2006) define thematic analysis as "text organized in terms of discussion of themes that arise from the data analysis" (p. 312). Transcripts were analyzed, coded using a highlighter, then cut up and sorted into the categories developed during transcription. All information was then collated on large pieces of paper. Data from the transcripts was first used to provide an overview of each case school by giving rich description of that case in a narrative form (Creswell, 2008). The data for each case school was analyzed separately

for the Results section. When writing up the Results section the participant stories were combined to give an overview of what was happening at each case school, under each of the initial categories.

As data were being further analyzed, and results written up, common themes emerged across case study schools. The themes that were identified through a deeper examination of the data were: curriculum change, learning communities, and teaching and learning. Deep examination and analysis of data using themes and categories was the most effective way to get detailed accounts of current practice and to connect any common themes between individuals within schools and across participating schools.

Trustworthiness

Validity and reliability of data are extremely important considerations when accepting or rejecting any research (Denzin & Lincoln, 2005). Much debate has occurred in relation to the use of these terms when referring to interpretive, qualitative research. Lincoln and Guba (1985, p. 288) support the terms ‘credibility’, ‘transferability’, ‘dependability’, and ‘confirmability’ as alternatives for validity and reliability, which are more closely aligned to quantitative research. No matter what terms are used to describe the robustness of data collected, the over all question is ‘is the data and research trustworthy?’ Lincoln and Guba (1999) state that, “The basic issue in relation to trustworthiness is simple: How can an enquirer persuade his or her audience (including self) that the findings of an enquiry are worth paying attention to, worth taking account of?” (p. 398). Lincoln and Guba (1999) suggest certain techniques that should be followed in order to ensure trustworthiness. These techniques have been aligned with this study as follows:

- rich description was recorded through the interview process. Interviews were recorded and notes taken to ensure data was accurately recorded and used. Interview questions were trialed on non-participants to ensure the data acquired was reliable and useful in answering the research question.
- member checking was undertaken to gain accuracy of findings. Principal participants were able to comment on the results written for their school. These comments were taken into consideration.

- ‘Triangulation’ was achieved by interviewing three participants from each school separately. Their individual understandings, combined to give a clear picture of their school’s reality.
- independent verification and guidance of the research process by my supervisors and through the masters thesis process.
- self-reflection by me for possible bias’ I may have brought into this study, occurred throughout this study and possible bias considered on an on-going basis.
- transferability of information from one school setting to another is possible. The data from the case study schools could inform other schools in regard to the curriculum implementation process.

Ethical Considerations

I received ethical clearance from the University of Canterbury’s Ethical Committee for this research at the end of 2008. I have used Tolich and Davidson’s (1999) five key ethical principles when conducting this research, to ensure all ethical issues have been considered.

The first of Tolich and Davidson’s (1999) principles is to do no harm. This research aimed to provide information on how schools are actually implementing the New Zealand curriculum and what effect the NZC was having on teaching and learning. The following four principles were used to ensure that this first principle was met.

The second principle is that of voluntary participation. Participants were asked to be part of this research project and were given all necessary information before consenting to it. At any time during the study participants had the right to withdraw.

All participants gave informed consent, which aligns with the third principle. I contacted potential principal participants directly, with both verbal and written information, which outlined the purpose of the study, the expected time frame, and what was expected from the participants. Once principals agreed to take part they approached potential teacher

and Board participants. Written and verbal information was then sent to the teacher and BoT participant. A letter of consent was also signed by the participants.

Tolich and Davidson's fourth principle is to avoid deceit. Clear, open and honest lines of communication were in place between me and the participants. As the purpose of the study was to get a true indication of what was actually happening in schools, there would be no benefit in intentionally deceiving participants.

Confidentiality and anonymity is Tolich and Davidson's (1999) fifth principle. Tolich and Davidson (1999) explain that New Zealand must be seen as a small town by anyone undertaking social science research, therefore, I acknowledge that complete anonymity is difficult to guarantee. The participants were assured that the information they provided would remain confidential to the researcher, and that anonymity of the participants and the school would be upheld in all published documents with the use of pseudonyms. All raw data is stored at my house for a total of five years before being destroyed.

These principles were carefully followed along with the ethical guidelines set out by the University of Canterbury (2008).

Limitations

This study had a small sample size of only three schools and nine participants, therefore, the results from this study cannot be generalized or seen as 'typical' of all schools in New Zealand. The participating schools were not representative of all schools, as schools were chosen using purposive sampling meeting the criteria of being a decile 8, 9, or 10 school, having a roll of 200 or more, and being on target to meet NZC implementation by 2010.

As this is a qualitative case study it must be recognised that as the researcher I could bias some of the findings through my own personal experiences and understandings. I have tried to interpret each participant's story as accurately as I can and used member checking as a tool to increase trustworthiness. It must also be noted that I am a novice researcher still learning and developing my research skills.

Chapter 4

Results

After analyzing the data and reviewing the literature, five data categories have emerged. These categories are: perspectives on the revised curriculum, the curriculum implementation process, NZC Principles and their use, NZC implementation challenges, and effects on teaching and learning. Through this section, these categories have been used to present the data from each case school, (the discussion section will look at key themes and comparisons across schools).

School A

School A, is a decile 9, city, contributing school (years 1-6) with approximately 320 students. There are 14 classes.

Participants

Principal A has been principal at the school for the past four and a half years. He has been in education for 20 years in various roles, including acting principal at another school before his current position.

Teacher A has been at the school for two years and has been teaching for 10 years

Board Member A is the Board chair, who is a parent of a child at the school and has been a member of the Board of Trustees for the past six years.

Perspectives on the New Zealand Curriculum

Principal A believed that a new, New Zealand Curriculum (NZC) was needed, as the previous curriculum was cumbersome and unwieldy, with “no subject being greater than any other”. It focused on coverage of achievement objectives. Principal A believed that the 2007 curriculum has simply “caught up with where (many) schools were heading”, and has taken a much needed and deeper look at pedagogy. He stated that the 2007 curriculum had taken many schools and teachers further with pedagogical understanding than they would have if a pedagogical section had not been included in the document. He believed that the new curriculum had encouraged teachers to reflect on their effectiveness, and promoted deeper learning experiences for children, through time being

made available to discover and learn, rather than teachers feeling pressure to ‘cover’, the curriculum. Since the introduction of the NZC, Principal A has seen a greater need for formative assessment within the school, to inform teachers, as they are teaching. He sees the new curriculum as a shift in thinking for many staff and that it will take time to implement and consolidate in the school.

Teacher A did not see a need to change from the previous curriculum. She was trained with the old curriculum and believed it was doing a good job. She found it easy to use and was comfortable with it. She was unsure of its effectiveness, as she had nothing else to compare it to.

Board Member A also did not see a need for a change in curriculum. “From a parents perspective I can’t see anything that needed to be changed”. He believed that the curriculum and the school had given his children an excellent education. He is interested to see what the new curriculum will offer and hopes that teachers will continue to focus on literacy and numeracy as much as they do now.

The curriculum implementation process

Curriculum change started for School A before the 2007 curriculum was released. When the principal was appointed in 2005, he started, with the staff, developing values for the school. He had gone on an ‘E-time’ (www.etime.co.nz) North Island school tour in 2003 and then took his senior management team in 2006. They were inspired by one school in particular and on their return, started developing a vision and values for their school, based on the needs and values of their community. From 2006 groups of staff were sent on this tour and asked to look at various things including each school’s vision, and values. In 2007, once half the staff had been on the tour and once other curriculum-based professional development had finished, an advisor was brought in and work began on the formation and consolidation of the schools vision statement and values. The principal wanted all staff to have ownership of the vision and values and for the vision and values to become part of the school’s culture. He used a values and beliefs model where the staff

formulated common values and beliefs about education and used these as a base for their decisions about what and how things are taught at the school. Once the vision statement was finished it was not used for a while, as it was quite complex and teachers needed time to get familiar with it. Staff came back to the vision statement after they had formulated shared values. The values were simple and easier to start imbedding into classroom practice.

Once the four values were established they were introduced into classrooms and specifically taught and talked about with the children and related back to things happening in the school and in the children's learning. Teacher A explained that the middle syndicate (year 3 and 4) introduced a 'Values Box', where children, who were actively using the school's values, could be nominated by their peers. Names were drawn out of the box at assemblies and celebrated.

The year that the school developed their vision and values they worked with several Ministry of Education advisors, had a consultation process with the community and also talked to children about what they valued and took 'student voice' into consideration when developing the values. Consultation with the community for the formation of the school values was through consultation meetings, which were poorly attended. Because of this, the principal sent out a survey and directly approached parents after school to get them to complete the survey. This information was then collated and considered when formulating the school vision and values. Principal A stated that:

"If you ask parents what they want to see taught, which is not a bad question, they would go back to what they were taught regardless of whether they were successful with that or not, they stick to the known".

He went on to say that further consultation will have an education aspect to it, and will begin by informing the community about the new curriculum and the different approaches to teaching and learning the school is adopting. After this he will then ask

parents “so with that in mind what would you like to see involved?” Information about the revised curriculum has also been shared with parents through school newsletters.

The principal felt that during 2007 and 2008 the values were starting to become imbedded in the school, but the vision was not being talked about, and was getting lost. He introduced certificates, for the children, based around the vision and started work with a graphic designer and some children to come up with a visual way of showing the school vision and values.

The principles in the NZC had not been considered by the school at this point, and were brought to the attention of the school by an advisor. The school spent the next phase of implementation focusing on the principles of the NZC and relating them back to their vision and values and making sure they understood them before moving to the key competencies, pedagogy and the learning areas of the curriculum. Principal A now feels that they have worked through the front part of the NZC and are now working on developing the learning areas to suit their school.

The principal believes the school has effective numeracy and literacy practices and that this is backed up by data. They had just started work on the ‘essence statements’ within each learning area in the NZC and were developing their own key learning statements about how they would teach each learning area. The one and two page statements for each learning area in the NZC were referred to in all case schools as “essence statements”. As part of the development of each learning area the staff were looking at the big ideas that should be focused on at level one, level two and level three, using the essence statements and achievement objectives, as well as their own professional judgments as a guide. Principal A thinks that this next phase of implementation will take a few years to get right and that work on the school’s curriculum, will never be completed. It will continually be reviewed and reworked and is not something that will be finished and then left.

Principal A discussed his view on the good practice that had been happening in the school before the introduction of the 2007 curriculum and the importance of not throwing out all the great ideas and practices already present, and starting again. He added that the practices and ideas that fit in with the 2007 curriculum and importantly the schools, vision, values and beliefs needed to be transferred to the schools new curriculum. This needed to be done slowly and carefully so that things are not lost or left out. He also discussed the importance of the change in mindset for teachers, from content coverage, to depth of learning in each learning area. Most of his staff had only worked through the previous curriculum introduced in the early 1990's, which he believed focused on content coverage and promoted short 4 to 5 week topics. Teachers at school A were starting to transition to a more in-depth model using an inquiry process, and spending time reflecting on the learning experiences they were providing for the children they teach. Principal A used an analogy of teachers who have been teaching from between 5 and 15 years having been taught to walk a certain way and now with the new curriculum they will need to start learning to walk differently. This will ultimately cause some frustration, confusion and will require patience and time. This is why the school has not rushed through the process but is taking it slowly, changing gradually, and getting teachers on board with the changes.

School A's Board member discussed his concern about the introduction of National Standards around the same time as the revised NZC becoming the legal curriculum. His main concern was the NZC and National Standards working in opposition to one another and perhaps confusing teachers, between new ideas around teaching and learning, and testing. He was concerned that the two together may impact on teacher's core job, "possibly by teachers writing more reports that perhaps are not necessary, and adding more paper work to an already busy workday". Board member A also said that he and the Board had very little to do with the implementation process but had complete faith in the principal and the staff in their ability to implement the 2007 NZC.

Throughout the process of curriculum change and implementation at School A, all professional development has aligned with the implementation. All staff meetings were

based around professional development, time from teacher only days had been used to focus on NZC implementation, staff were fully released once a term for a syndicate planning day which gave them time to work with each other and the NZC. Teacher A explained that having this time was valuable as some of the concepts behind the NZC were ‘hard to get your head around’, and that using the revised curriculum was a ‘change in mindset, that takes a while to work through’. Principal A enjoyed having the time to work on the curriculum during ‘teacher only days’ but said, “Teacher only days were good but staff were exhausted after three hours of it. It’s heavy stuff, so little bits at a time”. The school is not currently working on any other Ministry of Education contracts, which enables them to focus completely on NZC implementation.

Curriculum change and implementation is being led by the principal and one teacher who receives a management unit. All staff were involved in the process. Both the teacher and the Board member from School A talked about the principal being the key figure in leading the change.

The Principles in the NZC

Both the principal and the teacher from School A, understood that the principles within the NZC needed to be used to underpin everything that is done at the school. They explained that the principles should be used as a guide and referred to when creating the school’s curriculum, and making sure what is happening in the school fits in with those principles. Throughout the curriculum implementation process the staff have gone back and checked that the principles were being met within each stage of the implementation process.

Principal A explained that the principles had been used a lot in the implementation process, but had been missed out altogether until an advisor brought it to his attention after the vision and values had already been completed. The principal and staff then went over the principles in the NZC and linked them into their vision and values work. The school is purposefully including the principles into their own school curriculum

documents, referring to them specifically and making links to their values, beliefs and practices.

The Board member from School A admitted to not knowing much about the principles within the NZC but reiterated his confidence in the school leadership team to implement all the necessary changes. He also said that the Board is kept well informed through reports from the principal.

Challenges in Implementation

Principal A found there had been many challenges when implementing the revised curriculum, one of which was his own knowledge of the 2007 NZC and how it could be implemented. He felt he was usually only one step ahead of the staff and was learning with them as they went. For this reason he involved advisors and a local school principal that was further along with their implementation of the NZC.

Another major challenge has been getting teachers to shift their thinking about what education is or could be, and what the best ways to engage children in meaningful learning experiences that are relevant and useful to students in the 21st century.

Organising and creating a curriculum for their school, based on the NZC, has been a challenge for staff. Working out how to go about implementation, what documentation should look like, and how the curriculum is reflected in classrooms, have all been key issues. Principal A discussed the notion of not duplicating ideas from other schools and dropping them into his school. He believed that if schools do this, the ideas may not fit in perfectly with the schools values and beliefs about what education is, and will lack ownership from staff. He suggested looking at lots of ideas from lots of different schools and then picking and remodeling the appropriate parts to suit the school. He said that choosing a pre-made package would fail and didn't fit in with the curriculum's ideas about forming a curriculum that would work best for the children it serves.

Teacher A also discussed the idea of a complete mind-shift in what education is and what 21st century learners need. She said that one of the challenges she had seen was some teachers' resistance to change and to take on new ideas and learning. She personally found the move from focusing on achievement objectives to the concepts in the front part of the 2007 curriculum challenging, as it was a new way of thinking, focusing on what the children needed rather than what the NZC told you to cover.

Board Member A felt that getting all the staff on board with the changes would be the biggest challenge for the management team, as he said "some people adapt to change well, and some people don't".

Effects on teaching and learning

Principal A thought that changes to teaching and learning were happening across the school, but slowly. He talked about "a lot of great teaching practices happening across the school" and how teachers were slowly modifying and changing their practice to fit in with the new curriculum and the shared beliefs about education held by the staff. He thought that a bigger focus on formative assessment and the use of effective feedback to children was evident. He has also started to see a change in children's ability to transfer knowledge and skills from one learning situation to another. Principal A has seen a change with the introduction of an inquiry learning model promoting more in-depth topic studies which have a longer duration and are not focused on coverage of achievement objectives.

Principal A has seen a change in his role as principal, from a more administrative management position, to being a leader of teaching and learning. Principal A now spends one day a week in classrooms, and is working to de-privatize classrooms further by: encouraging staff to use release time to observe in each others rooms, changing the appraisal system (staff are now using a peer appraisal system), and holding staff meetings in classrooms. This is all in an effort to get teachers talking about teaching and learning by fostering a collaborative learning environment. He believed that the NZC has been a catalyst for these changes, and that these changes have increased teacher's workload, as

they get to grips with new ways of doing things. Principal A stated: “It’s important stuff. It’s good work. It’s what we are about”.

Despite the changes described by the principal, Teacher A doesn’t feel she has changed that much in the way she teaches core literacy and numeracy. Her planning has changed to some degree but she doesn’t feel the delivery has. She has seen a change in topic teaching through using an inquiry model and more of a focus on the ‘front part’ of the document, teaching and incorporating the school’s values, and key competencies.

Board Member A hasn’t seen any major changes from a parent’s perspective. He discussed the Numeracy Development Project and how that had changed the teaching of maths at the school. Some parents, including himself, took a long time to understand why the teaching of maths needed to change, and he said parents need to see a reason if there is going to be a change. Principal A explained that parent information/education would be happening around the introduction of the revised curriculum in 2010, to help keep parents informed.

Summary

The participants from School A had worked through a curriculum implementation process that enabled their school to use their shared values and beliefs about education as a basis for decision making and for developing their localized school curriculum. The principles outlined in the NZC (2007), had been referred to and used through most of the implementation process. The principles were overlooked at first, as values and beliefs were being formulated, but were focused on after this time. Teaching and learning had continued to develop with the introduction of an inquiry-based learning model and continued professional development. Staff were starting to change their thinking about teaching and learning as they moved through the implementation process. School A staff were continuing to work on learning area development. The principal believed that curriculum implementation, refinement and review will be an ongoing process, and that curriculum change takes time.

School B

School B is a decile 8, city school with a roll of around 200 children. The school caters for children from years 1 to 6, and has 9 classrooms.

Participants

Principal B has been the principal for one year and was the deputy principal for 5 years prior to this appointment. She has been in education for 13 years.

Teacher B has been teaching at the school for nine years and is currently teaching a New Entrant class.

Board Member B has been on the Board for three years. She is not a parent but an aunty of child at the school.

Perspectives on the New Zealand curriculum (2007)

Principal B believed that a new curriculum was needed, as the previous curriculum was ‘bogged down’, with achievement objectives. She also expressed the need to change the way we approach teaching and learning in order for teachers to meet the needs of 21st century learners, as the previous curriculum was not providing that framework.

Teacher B believed that there was a need to revise the curriculum and to streamline it, as the previous “curriculum had a lot of documents, and a lot of areas were fragmented”. Each learning area was written slightly differently and they didn’t always work well together. Teacher B thought that there were a lot of good things in the previous curriculum, but there were too many achievement objectives and too much focus on coverage of them. She said that the 2007 NZC allows schools to develop their own curriculums that suit their communities. It is now one document, which draws everything together a lot better than the previous curriculum did.

Board member B has not had any experience with any other curriculum so could not compare with the previous curriculum. She liked the way the 2007 curriculum allows schools to develop learning programmes that meet the needs of the community they are in.

The curriculum implementation process

School B started developing their curriculum when the draft NZC was released in 2006. They had become aware, before this time, that they should develop some values around teaching and learning for their school. The draft NZC pushed them to do this and this is where they started the process. The school used a values and beliefs model to help them develop and understand what they truly believed and valued about education. These values and beliefs are reflected in the schools values and vision statement and are now often used when making decisions around the school, by asking the question ‘does this fit with what we value and believe about teaching and learning at our school?’ During the early stages of implementing the 2007 curriculum, the staff from School B were on the ICT contract. This contract had a large focus on pedagogy and complemented development of their vision and values. Principal B didn’t think they really had a good understanding of what needed to be done at that stage, but they had started and that is what became the ‘bones’, of their school’s curriculum. During this time the school referred to and ‘unpacked’ the NZC and used it as a guide. They invited advisors into the school to help guide them through the curriculum implementation process.

The school also consulted with their community, through meetings, about what they valued for their children’s education. “Consultation is fine but needs a purpose” (Principal B). The principal discussed the need to educate and inform parents and the community as “everyone’s been in education, everyone’s been to school, everyone’s got an opinion and often regurgitate what happened to them”. They have held information sessions for parents and caregivers, and shown a video called ‘Shift Happens’, which looks at the rate of change in the world at the moment. Principal B explained that they, as a staff, are only now getting their heads around the changes and it would be unrealistic to expect parents to pick up all the information in two sessions. The community is also kept informed by articles provided with the newsletter, suggested websites, and answering questions each week in the school newsletter. The principal is aware that not all parents will be interested, but information on the 2007 curriculum, and the schools direction is being offered.

A graphic representation of the school's values and vision has recently been produced and their values are now firmly bedded into the school's learning environment. The values are being used and referred to throughout learning programmes, and in all aspects of school life. The school focused on the principles of the NZC early on, believing them to be the key driver of the NZC and needed to underpin all the curriculum work they were to undertake. A lot of time went into unpacking these and making sure they were reflected in the schools vision statement and values, and in all subsequent work. Key competencies were the next area to be focused on, again utilizing advisors and unpacking what the key competencies would mean for the school and starting to implement them into classroom practices.

After the school finished the Ministry of Education ICT contract they embarked on a literacy contract. Each of these contracts added something to the teachers' pedagogical understanding and ultimately impacted, not always directly, on their thinking as they worked with the NZC and framed their own school curriculum.

The school is currently working on the development of learning areas. The staff are developing key learning statements about each learning area, which they see as the drivers for those learning areas. They are using the NZC's essence statements as a basis for developing their own learning statements. These learning statements incorporate the schools own values and beliefs. They are moving away from the scope plan model of doing topics based on curriculum areas, achievement objectives, and coverage over two years. They want their statements to be about the 'big ideas' in each learning area and then include conceptual development themes or ideas for curriculum levels. The big ideas deriving from the essence statements are the main guide to developing these statements. Principal B stated that "we don't want to be driven by achievement objectives (like the previous curriculum) we want to be driven by the needs of our kids and what we see as important to those learning areas".

For the development of the learning areas the staff have been put into curriculum teams and given time to develop statements. They are conscious of making sure that statements

align and work with each other so they are brought back to the whole staff for comment on a regular basis. These curriculum teams have been given school time to develop their learning area statements. As Teacher B explained, “Their meetings start at 1 o’clock and go to 4pm acknowledging the fact that a lot of after school time has gone into this, so it’s nice to actually have a decent chunk of time and start when you’re fresh”. Teacher B explained that the staff walk away from these meetings feeling that they have made good progress.

Board Member B was unsure of the exact implementation process that the school had gone through but was pleased that the school had been very proactive in seeking advice and starting the process early. From a Board member’s point of view she had complete faith in the principal and her ability to implement any changes that would be required.

Throughout the process the principal has encouraged staff to talk professionally, “trying to get that dialogue happening and get people really thinking about and reflecting on their practice”.

Time has been made available for staff to individually interview each child in their class, as knowing the learner is valued by staff. Teacher only days have been focused on curriculum development and staff meetings have a strong professional development focus with little administration.

Advisors have been utilized, often, throughout the processs, with Principal B explaining that their main advisor was fantastic as she was “not doing PD to us, but working together with us”.

Both Teacher B and Board Member B commented on curriculum change and implementation being led strongly by the current principal over the past year with the previous principal also having a large role in leading the change before this. Principal B commented on everyone having responsibility for curriculum development. She did not want a couple of individuals driving the change and making all the decisions as the

process needed to be owned by everyone. Advisors were also seen as leaders of change within the school.

Since the school started the curriculum implementation process, staff have been involved with an ICT contract and a literacy contract. They were not involved in any Ministry professional development in 2009, which all staff were pleased about, as it gave them the opportunity to focus solely on curriculum development. All professional development in 2009 was focused on or contributed to the development of their school curriculum.

School B is in the process of finishing off the learning area statements and pulling all they have done together, into one cohesive curriculum for their school. They are continuing to revisit what they have done and challenge what they are doing. All the people interviewed expressed the opinion that the curriculum work will never be 'done'. It will continually need to be looked at, monitored and updated in order to meet the changing needs of the children at the school.

The principles in the NZC

Both Principle B and Teacher B believe the NZC principles need to underpin all that they do with their schools curriculum. The principles must be taken into consideration with all curriculum work. Principal B stated that, "They (the principles) underpin everything. We are making sure that they underpin and are imbedded in what we are doing. We don't see them as sitting separately, we see them going through the work we've done". Principal B explained that everything relating to curriculum needs to link back to the NZC principles. Teacher B called them "the guiding light", and suggested that they should be represented in day-to-day planning. The staff do not want to get into a situation where they are ticking boxes on a unit plan. They want the principles considered and lived through what they do at the school. Teacher B believes this is the ideal and that they are still a long way off achieving this. The NZC principles have been referred to specifically throughout School B's curriculum documentation.

Board Member B believes the principles are the minimum requirement the school needs to address in order to meet the needs of the learners at that school. She believes they are a broader view of what makes a child a good learner and what skills and attributes those learners will need now and in the future.

The principles in the NZC have had a major influence on how School B has gone about curriculum development and implementation. The NZC principles have been used and referred back to throughout the process. Ensuring that the NZC principles have been met has been one of the challenges of implementation.

Challenges in Implementation

Principal B felt that one of the major challenges with any change project is that of staff resistance. At the beginning of the change process, some teachers were resistant, as they felt they had changed curriculums many times and didn't really see the value in a further change. It took time and careful people management by Principal B to ensure that all of her staff were onboard with the changes and the 2007 NZC. Principal B thought that not rushing through the process and providing support for staff had helped. She thought that rushing through the process would have damaged relationships and may have potentially resulted in loss of some of her teaching staff. Principal B also stated, "Sometimes we've just got to move on and that's the really tricky bit - finding the balance".

Teacher B discussed the challenge of embedding the new curriculum into practice and making sure that children truly lived the school's values. Teacher B found that, "the children could say all the values, they had all the right words, but you didn't see them in the playground, ... they were still not really living them". Embedding the values to a point where children are living them has been a major challenge.

Teacher B also discussed the challenge of "not just rehashing" what they had been doing to fit in with the 2007 NZC, "not to just apply the new document to what we've always done, but completely changing staff thinking on what teaching and learning is". Teacher B went on to discuss the importance of not throwing out all the great practices already in

place, but evaluating each one against the NZC principles and the school's values and beliefs. She said that just because they had always done something didn't mean they should force it to fit. Some things didn't fit with their new curriculum and so were dropped out of their programmes which she thought "was scary".

Board Member B did not see any challenges from her point of view as the principal was very proactive in the implementation process. She felt that this had negated any challenges by encouraging the school to embrace the 2007 NZC.

Effects on Teaching and Learning

Principal B believed that the new curriculum had encouraged her teachers to reflect more on their practice and "have a go at trialing some different things". She felt it had allowed her staff, after reflection, to express their concerns and apprehensions and to be proactive in going to different schools to observe others' practice. Principal B pointed out that the values and beliefs were very strongly imbedded into the school's culture and practice. With the school's values being specifically taught and now 'lived' in the school. Principal B believed that teachers were starting to change some classroom practices as a result of better pedagogical understanding and through matching practices against school values and beliefs. She also commented on how values and beliefs were having an impact on learning environment development and resourcing, stating that the learning environments and the equipment used for teaching must reflect the schools values. Principal B gave the following example, "When we go to buy computers, are we going to buy small laptops or are we thinking a bit bigger for screens that groups can work around?"

Teacher B discussed the change in the way teachers plan and the formats they have used, as well as the change in focus away from achievement objectives to values and key competencies. For Teacher B, key competencies have become a major focus (and change) in her teaching. In her New Entrant class she runs a developmental programme where key competencies are used and discussed as a major teaching focus.

“We had a group that really couldn’t share or take turns, so we’ve been building the key competencies in a lot and talking to children about them. What’s it going to look like when I wander around the classroom? What will I hear people saying? And how will I see you sharing stuff?”

Teacher B thought the technique outlined above was an easy and effective way to use the key competencies and get them “living and breathing in the classroom.”

The school’s values have been a major focus in learning programmes. Teacher A discussing the ‘value of the week’, where in her New Entrant class they focus on a different value each week. This has enabled the children to develop vocabulary and understanding of what the values actually mean. “Junior children say, ‘you haven’t been showing respect’, but they really have no idea what that means, so getting the vocab in so they can actually talk about these things has been a big thing”.

Another change in teaching practice that has impacted on children is the introduction of inquiry learning. The school has developed an Inquiry Model and is using it in learning situations that they see as appropriate. Teacher B also discussed the fact that the way they plan learning activities is more conceptual rather than contextual, the main emphasis is on the concept they want the children to learn, the context in which that happens is less important. She also discussed the children ‘knowing’ things in different ways and their ability to transfer knowledge from one situation to another, as a change and a focus for learning programmes.

Board Member B described the effects of the NZC on teaching and learning as allowing teachers a more open framework in which they can follow the children’s needs more easily. She also thought the NZC positively affected the schools ability to meet the needs of the community they were in, allowing the community to influence what and why things are taught.

Summary

Teacher B and principal B had a good understanding of the New Zealand curriculum (2007) and had a clear direction for curriculum implementation in their school. The Board of Trustees member had complete faith in the principal and school's ability to implement the new curriculum. The school followed a values and beliefs model and used the principles in the NZC to guide the formation of their school curriculum. The school has introduced an inquiry-based learning model and has actively used and taught the schools values and the key competencies from the NZC. The school is working on developing practices and documentation for each learning area. All participants believed that curriculum implementation, review and development would be an ongoing process.

School C

School C is decile 9 school with a roll of approximately 600 children. It is a contributing primary school catering for children from year 1-6, with 26 classrooms.

Participants

Principal C has been the principal at School C for two years starting in 2008. He has been a principal for 8 years and been involved in education for 18 years.

Teacher C has been at School C for 17 years and has taught a variety of different year levels. She is currently teaching a year three and year four composite class.

Board Member C has been on the Board for three years and chairperson for the past two years. She is also involved with education in her professional life.

Perspectives on the revised curriculum

Principal C thought that the 2007 curriculum was definitely needed. He believed that the old curriculum was fragmented and discipline based rather than having “a cohesive understanding of children and their learning”. He described the 2007 curriculum as being focused on the child and what we want for children in New Zealand. Principal C stated:

“The new curriculum is in response to effective practice that’s been happening in some New Zealand schools... The revised curriculum didn’t come out and people dropped jaw and (thought) my god I’d never thought of that!”

Principal C believed that the ideas in the NZC (2007) are not new but reflect current educational thinking. The curriculum has “caught up, with where (many) schools are heading anyway”.

Teacher C also thought that the previous curriculum was crowded and that a big emphasis was on coverage rather than depth of learning. She felt that with the old curriculum it was hard to ‘do justice’, to any of the subject areas measured against the curriculum as you were trying to cover everything. For these reasons she believes that a new curriculum was required. Teacher C did not see the point of a new curriculum when it was first

introduced but said that after experiencing the 2007 curriculum her view of the new curriculum had changed.

Board Member C felt that the 2007 curriculum was keeping up with the speed at which the world is changing. She felt that the NZC will better prepare our kids for an unknown future by focusing more on the whole child and (key) competencies rather than data and knowledge acquisition. She felt that the new curriculum is better equipped to help educators do this than the previous curriculum.

The curriculum implementation process

School C had a change of principal at the beginning of 2008 and had started work on the 2007 curriculum before this time. The previous principal started work on the curriculum areas within the NZC. Teacher C discussed social studies as a starting point. The community had been consulted on what they wanted their children to leave School C with in social studies. A lot of documentation was formed around social studies teaching. Teacher C believes that the previous leadership team was well meaning but missed the idea of looking at the child in a holistic manner. She mentioned that her opinion was formed with the benefit of hindsight.

The new principal started at the beginning of 2008 and immediately focused his attention on the front part of the 2007 curriculum. Firstly he focused on developing a vision statement and a set of values for the school. His aim was to have values and a vision that were meaningful for the community and could be ‘lived’ throughout the school. He discussed the need for “the values to be more than words on the wall”. The principal spent time revisiting previous community surveys and collecting further data while working with the staff and community to develop a set of values and a vision statement that were jointly owned by the Board, the children and the staff.

Once the vision and values were established the principal and teachers worked on formulating some key teaching beliefs. These beliefs, which were shared and developed

by staff were: excellence in numeracy and literacy, challenging learning environments, and rich tasks and meaningful learning contexts.

The key competencies were the next part of the document to be focused on. The principal did not want the key competencies to become a checklist. The staff spent a lot of time seeing how the key competencies could become a reality in the school.

The teaching staff visited some North Canterbury schools that the principal knew were well advanced in their curriculum development. This was followed up with more time unpacking the front part of the curriculum. The staff also looked at teaching as inquiry. A special projects team started to look at what child-centred or child-focused learning and inquiry learning were about.

The staff started to investigate learning cultures, which included discussion on moving away from subject area teaching, to teaching the whole child through a more holistic approach. They specifically looked at integrated inquiry and classroom Kotahitanga, (place for everyone and for everyone a place).

At the beginning of 2009 all of the teaching staff went on a professional development tour to Wellington and Palmerston North. They were taken in three different groups. The purpose of this trip was to see schools that were already leading the way with curriculum development in order to boost and trigger thinking amongst School C's teaching staff. They were particularly interested in integrated inquiry and self-regulated learners. Principal C describes self-regulated learners as having CHILL factor, (children independently leading their learning).

Following this trip the teachers revised their school curriculum again, making sure that their practices aligned with their values and beliefs, and looked for gaps between their school's curriculum and the NZC. They found that more work needed to be done on the principles 'Identity' and 'Future Focus'.

The principal argued that during this whole process it was important to keep the already established, high quality practices going in classrooms, and not throw everything out and start again. For this reason he focused more on improving teaching and learning, and used the NZC to help with this, rather than making the 2007 curriculum the major focus. Through the focus on pedagogy and effective teaching practice some thinking and practices at School C have changed, and are continuing to change over time. Some practices have changed in order to meet the school's shared beliefs about teaching and learning, while some practices have stayed the same, because they fit with the schools values, beliefs and vision. Principal C stated that, "Meaningful long lasting change takes time, and teachers' need to be involved in decision-making and involved in the process in a way that empowers them and gives them ownership".

The principal discussed his desire for his staff to have what Lester Flockton describes as 'Cognitive Portability' (New Zealand Education Institute, 2009), that is, teachers have some of the important aspects of the document committed to memory, so they carry that knowledge with them always and don't have to look it up. Principal C discussed the NZC as being one document making this task easier and the use of acronyms, such as TRUMP (thinking, relating to others, using language symbols and test, managing self, and participating and contributing) to remember the key competencies helpful. Principal C also described teachers truly knowing and being able to articulate the essence of subject areas such as social sciences. Principal C believes that teaching practice in the school is moving to an integrated inquiry teaching approach. He stated that, teachers still need to have a solid understanding of the essence of each learning area for this to work effectively.

The staff are now working on unpacking subject areas and are focusing heavily on the essence statements for this. As Principal C explained, he wanted the staff to be "clear that when we are teaching science we don't want airy fairy rubbish. Let's make sure we know what we are teaching".

Throughout the first stages of curriculum development when the front section of the NZC was being discussed and used School C staff did not look at the learning areas and achievement objectives. Professional development was aligned with all curriculum development. Because the NZC has not been the visible major focus, Teacher C described her professional development experience as being “hard to distinguish between new curriculum PD and PD relating to good practice”. Principal C stated that “We haven’t been doing just PD around the new curriculum, we’ve been doing PD about effective practice and that happens to compliment the curriculum”. Teacher only days were used to make time to discuss and develop curriculum and teaching practice, as were staff meetings and occasionally the Monday morning administration meetings.

Throughout the curriculum development process the school community was consulted and involved in the process. The schools values and vision were the first areas discussed during this consultation. Following this an overview of the NZC and a discussion about what the community thought ‘learning and life in the 21st century’ could be, took place. From this discussion, possible skills and attributes of a lead learner at School C were debated. The community were also asked to discuss which learning areas they felt were more important, for example science was given a higher rating than social science. Further meetings were held to educate parents on the ways numeracy, literacy and integrated topic were taught at the school. The school also surveyed the community on many aspects of the curriculum. The principal was pleased with the number of attendees at meetings and the number of survey responses the school received. The community responses informed the schools thinking and decision making. The principal saw the meetings as a critical part of the new curriculum and a perfect opportunity to educate and inform, as well as consult parents. He stated “I think our parents live in nostalgia land and actually don’t understand what we’re doing in schools today, so we use it (meetings/consultation) for a dual purpose”. The principal also held ‘coffee with the principal’ sessions, where at 9am every second or third Friday, he went to the library and parents were invited for a cup of tea or coffee. The sessions were either informal get-togethers or Principal C used them as an opportunity to inform/educate/discuss/consult concepts with the parents.

Throughout my discussions with the participants at School C it became apparent that the principal was the key driver of curriculum change and development at the school. The principal was supported by a literacy leader, numeracy leader, and integrated learning leader. Each of these leaders had another teacher as a support person and together they were creating the documentation to match what was happening in classrooms, and had been agreed on by staff. Principal C pointed out that the teachers were the key drivers of change as they had the major influence over the learners at the school. As most of the focus was on improving teaching and learning at the school, documentation was left until last. Principal C describes the curriculum as “not what’s on paper, it’s what happens in class, because what happens in class is informed by best practice”. For this reason he was hopeful that documentation would accurately reflect what was happening in classrooms. School C’s curriculum documentation also includes a scaffold for improvement for teachers. A rubric showing a continuum in each learning area was developed to describe what learning would look like for a novice through to an expert. This was aimed at helping teachers improve and reflect on their practice.

The Principles in the NZC

All of the School C participants explained that the principles in the NZC are the things that should underpin everything that is done in a school. Principal C suggested;

“They give us something to aspire towards, but predominantly they are to underpin everything. It’s about who we are as Kiwi’s. It’s about who we are as a nation, and they are what make us unique as New Zealanders, and therefore require a good amount of thought and understanding about how they might be expressed in what we actually do in the classrooms”.

The staff at School C kept coming back to the principles and asking themselves if the principles are really being expressed in what teachers do? Through the schools curriculum documentation they have shown how these principles might be expressed at the school. This has been done as a global overview, not specifically pinpointing individual practices. Principal C gave this example, “if we take the Treaty of Waitangi

and Inclusion ... you are going to see these being expressed in our te reo programmes, in our staff PD sessions that we run every fortnight, in our Kapa Haka programme and in our powhiri we have for our new families”. The principal and staff have not documented specifically where the principles will be used in curriculum areas. The idea is to use the principles as an overarching guide to help underpin learning.

Challenges in Implementation

Principal C believes the biggest challenge for his staff is the change in thinking from traditional topic areas to integrated inquiry. As he stated, “Most teachers know about effective practice in numeracy and literacy, they know about the arts and how they fit in, but they are confused, I would argue, about going from strict disciplines in the traditional topic areas to learning that’s child-centred and driven by children’s needs, interests and concerns”. He explained that he kept the curriculum itself fairly low profile as he believed that putting a new curriculum in-front of people and telling them they have to learn it, would be stressful and cause resistance. He looked at areas within the NZC that needed to be developed, and what steps were needed to get there. The curriculum was used as a guide or checkpoint of whether they were going in the right direction. Principal C stated that with any change in a school, managing staff resistance to change was a challenge.

Teacher C’s teaching philosophy is based on values education so she did not find any major challenges when implementing the NZC. She explained that there “was an old school feeling from some people. Why are we changing something that they thought was working well?” Teacher C explained that new curriculum gave her freedom that the other curriculum did not. She said that some teachers found new teacher jargon confusing, thinking that everything was changing, when some things were the same, they just had a new ‘jargon’, name.

The BoT Member thought that workload would be a challenge as teachers get used to some changes in their teaching practice. She also believed that having national standards introduced alongside the NZC would also be a challenge, as “providing a curriculum

which is rich and enables 21st century learning and yet still meets the compliance needs of the Ministry of Education and 20th century assessment methods could be difficult”.

Effects on Teaching and Learning

Principal C had seen change in teaching and learning at the school. He explained that it was difficult to pinpoint what change was directly attributed to the introduction of the 2007 curriculum and what was from ‘normal’ staff professional development. He discussed gradual change as important for sustainability in the long term. Through this gradual change the school had gained clarity from its vision and values. Principal C explained that the values are not just “things on the wall.... When you look at the new curriculum it talks about them (values) being modeled, explored and encouraged, which I really like. Living the values in the school has been a significant change for us”.

Having a common language throughout the school has also been a change.

“One thing I really don’t like and wanted to change was the rollercoaster ride for the children as they go from one class to another. This teacher has this type of homework practice and this type of behaviour practice and this type of language they use when they talk to me about my bad behaviour and my good behaviour.

They have a different set of values which they think are important” (Principal C).

The teachers at School C now have some consistency with the language they use when talking to children about the school’s values and the children’s behaviour. They have adopted common practices, while still being encouraged to be diverse, exciting and innovative, which has been a significant shift for many teachers. Some of the agreed common practices are: sharing learning intentions with children and co-constructing success criteria, reflection time, and a shared language for inquiry learning.

The teachers clarified what they meant by ‘best practice’ in each learning area. For example, effective practice in numeracy had been clarified using a continuum outlining examples from poor through to exemplary practice. Each teacher can figure out where

they fit on the best practice continuum and then support is provided to help them get to the next stage. Principal C believes that this has helped improve teaching practice. Teacher C agreed with Principal C that the main effect on teaching and learning had been the imbedding and constant use of the schools values, and the use of a common inquiry learning model. It is hoped children will have consistency from year to year, and from teacher to teacher. One other change in teaching and learning that Teacher C noticed was the change to deeper learning experiences for children. Teachers were able to spend more time on a topic and deepen children's understanding. She believes this is due to less focus on achievement objective coverage.

Board Member C believed that changes to teaching and learning had been a direct result of a new principal starting, teachers reflecting on their own practice as they get to understand the 2007 curriculum, and the school becoming more aligned, by using common language and some common practices across the school.

Summary

Principal C has shown strong leadership through the implementation process and has had a clear vision of where the school should be heading. The school has developed a strong partnership with the community and developed learning programmes that reflect the wants and needs of their community. School C has used a values and beliefs model to guide their schools curriculum development, and all participants including the BoT member had a good understanding of the NZC (2007) principles. The school is working on developing practices and documentation for each learning area. All participants from School C believed that curriculum implementation, review and development would be an ongoing process.

In the following chapter the results from the three case schools will be discussed in relation to the three emerging themes and related literature.

Chapter 5

Discussion

It will be recalled that the major research question for this study was *What are primary schools' understandings and experiences of implementing the New Zealand curriculum (2007)?* Having considered the results from each school, this chapter explores the three themes arising from the results: curriculum change, learning communities, and teaching and learning.

Curriculum Change

Many of the challenges surrounding implementation and strategies to manage change experienced by the case schools align with current literature. Fullan and Hargreaves (2002) have written extensively on change processes in schools and the procedures that could be followed to implement these changes. The Ministry of Education has produced a number of online resources (<http://nzcurriculum.tki.org.nz/>) for schools to help with the implementation of the NZC. The case study schools' implementation processes have matched many of the Ministry of Education recommendations and resources for implementation. In this section, the theme of curriculum change is divided into four sub-themes including, change in educational thinking, speed of change, resistance to change, and the changing role of the principal. It was evident that change did occur in each case school and the amount of this change will be considered in more detail at the end of this section.

Change in thinking about what education is.

Teaching and learning in each of the three case study schools appeared to be changing and evolving constantly. The philosophical underpinnings of the NZC (2007) are consistent with the growing realization of the need for a major shift (not just incremental change) in approaches to teaching and learning in schools nationally and internationally. Claxton (2008), Robinson (2009), and Gilbert (2005) discuss the need for educators to

change the way they think about what teaching and learning is and what it is for. Gilbert (2005) suggests that:

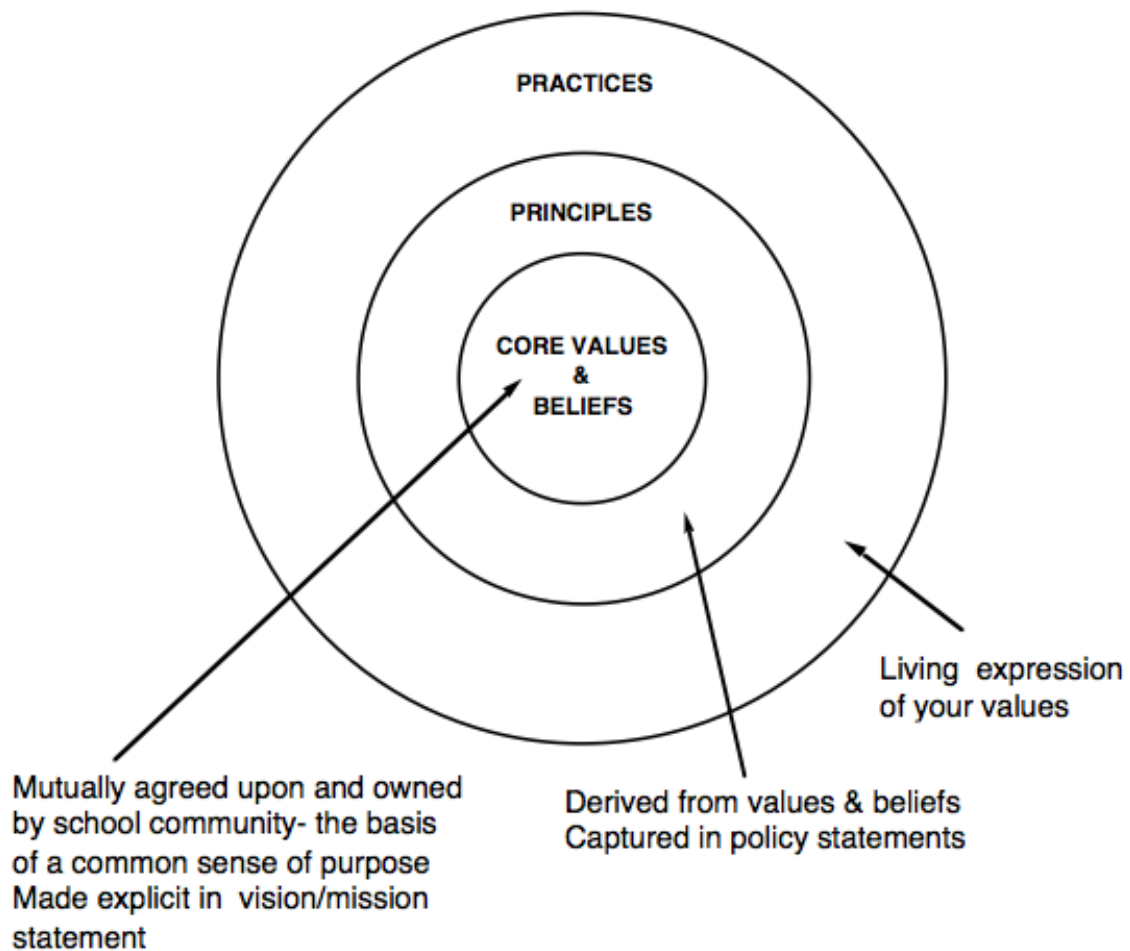
“new and very different ways of thinking are challenging and replacing long-standing and highly significant ways of thinking. These changes do not represent the usual process of adding to and improving existing ideas: rather they represent a paradigm shift – a radical break with the past that requires us to stop and completely rethink much of what we do” (p. 10).

All of the case study school participants discussed how they needed to change their mindset and ideas on teaching and learning and what the purpose of school is. Teacher B explained that one of the challenges of implementing the new curriculum was “not just rehashing” what they had always done, “but completely changing staff thinking on what teaching and learning is”.

Currently, a major change in education nationally and internationally is a move from a model where children were being taught knowledge and skills to equip them for life in what O’Neill et al. (2005) refer to as the ‘industrial age’, to a more personalized system where children are developing not only literacy and numeracy skills but a myriad of other knowledge, skills and attributes which will equip them to meet the challenges of living in this century (O’Neill et al., 2005). Much of the knowledge, and many of the skills and attributes seen as fundamental for success in 21st century society are outlined in the New Zealand Curriculum (2007), for example, the *vision* outlined on page 8 and the *key competencies* on page 12. All participating principals and teachers in this study discussed new ways to engage children in learning. These included moving away from teaching traditional topics to using an integrated inquiry approach, moving away from content coverage to deep learning, moving towards a focus on holistic education and teaching and developing skills which will ensure children become life-long learners. Such ideas are consistent with the New Zealand Curriculum (2007) and the writings of many prominent educationalists, Claxton (2003 & 2008), Gilbert (2005), and Robinson (2009).

In the current study, teachers and principals discussed the need to change their thinking and some of their practices. They all also discussed the need to continue with the effective practices that had already proved successful in their schools. Teacher B emphasized this point by discussing the importance of evaluating each teaching practice against the NZC's principles and the school's values and beliefs. This meant that some entrenched practices were dropped, as they no longer met the needs or engaged children in learning, and were not consistent with the NZC requirements or the school's values and beliefs. Other effective practices were maintained and developed. Teacher B's ideas on evaluating teaching practices also highlights the importance of values in curriculum development.

Atkin (1996) promotes the idea of schools being driven by the staff's shared values and beliefs on education. All of the participating schools demonstrated that they used their values and beliefs to guide curriculum implementation and the everyday running of their schools. Atkin's (1996) model (next page) shows how values are at the core of a school's curriculum, and principles and practices need to align with these values and beliefs.



Atkin (1996, p. 4)

All schools used a values and beliefs model to evaluate current teaching practices and implement new practices. Values and beliefs and their use in school development are discussed further, later in the chapter.

Both the literature and the participants in this research emphasise the need for a change in mindset about what teaching and learning is. Gilbert (2005) argues for a complete shift in paradigm, and a need to rethink what we are doing as educators. All of the schools acknowledged the need for educators to change the way they view teaching and learning.

The participating schools had started to develop an environment for this change in thinking before the introduction of the new NZC (2007). Principal C stated,

“The new New Zealand curriculum is in response to effective practice that’s been happening in some New Zealand schools... the revised curriculum didn’t come out and people dropped jaw and (thought) my god I hadn’t thought of that!”

Much of the thinking, ideas, values, and practices have changed in these schools and are continuing to change. Later in this section I discuss some of the barriers to large-scale change, one of which is the speed at which meaningful, long lasting, change can take place. Because of such barriers, and the need for a slow and considered approach to change, I do not believe that at this stage of the implementation process, that the participating schools have changed their thinking and practices as much as Gilbert (2005), Claxton (2008) and Robinson (2009) believe they need to. Based on the data from this study I believe that they will, in time, make further change as curriculum is reviewed and revised, and teachers have a better understanding of teaching and learning theory and practice.

All participating schools were early adopters of the NZC (2007) and have put in place professional development programmes that support curriculum development and improvements in teaching and learning. As more professional development is undertaken and schools continue to develop strong professional learning communities, teachers’ ideas and practices about teaching and learning will continue to evolve. New learning and changing the mindset of staff and the community is difficult and takes time. The speed at which change takes place can be a factor in staff ownership and the long-term sustainability of that change.

Speed of change

Slow gradual change, where all staff become involved and have ownership, was a common theme through all case schools. All principals discussed time as a critical factor. Staff needed time to really consolidate new thinking or practices as well as time to reflect

and discuss current ideas and practices. Principal C stated that “Meaningful long lasting change takes time, and teachers’ need to be involved in the decision-making process in a way that empowers them and gives them ownership”. The idea of slow, sustainable change is supported by Nilakant and Ramnarayan (2006). They discuss the need for staff to have time to adjust to new ideas and practices, and have time to implement these new strategies.

All participating principals and teachers also emphasised the need to have a good understanding of the NZC and time to try new ideas and practices. All participating schools started their curriculum development and implementation process when the new curriculum was released and in some instances when the draft curriculum was published. This means that these schools have had three to four years developing and implementing their school curriculum and all schools are still working on this implementation. None of the case schools have rushed the process. Principal A discussed the need for slow change so that nothing is left out or lost through the process.

As teachers change their personal philosophies on teaching and learning and the schools consolidate their localized school curriculum, teachers need time to adjust their thinking and practices, around these new ideas. Principals need time to work with staff to minimize any resistance staff may have to the change process.

Resistance to change

Staff resistance to change was seen as a major challenge by all principals. Principal B outlined how some of her staff didn’t see the value in another curriculum change, and saw it as, ‘just more work’. She was conscious of this and worked carefully alongside those teachers. Nilakant and Ramnarayan (2006) state that the hardest part of any change project is managing the people in the process. Resistance to change is likely as some staff may not see the need to change, and teaching in different ways can increase anxiety. Teacher C discussed her initial thoughts of not wanting to go through another change in curriculum, but agreed that the changes had definitely improved teaching and learning.

Principals in this study agreed that people management, slow consultative change, giving ownership to the staff, listening, providing support, and opening teachers' eyes to new ideas and possibilities, were all critical aspects of the change management process. Doing these things reduced resistance. Principal A believed that through the new curriculum implementation process, his role as principal had to change in order for him to manage this change effectively.

Changing role of the principal

Robinson (2004) and Stoll et al. (2003) discussed the shift in the role of the principal from that of administrator to that of instructional leader, or leader of teaching and learning and curriculum. All three principals in this study commented on this change in their positions, to a stronger focus on leading teaching and learning. Principal A saw a change in his role as principal, from a more administrative management position, to a leader of teaching and learning. The Best Evidence Synthesis (Timperley et al., 2007) outlined the importance of the principal as leader of professional learning, and how this role has recently had a greater emphasis with the introduction of the NZC (2007). Consistent with the findings of Southworth (2002), all principals in this study spent time in classrooms and all teachers and Board of Trustee members saw the principal as the key driver in curriculum change and implementation. The principals were learning and leading staff, and this helped to develop learning communities within their schools.

Learning Communities

As part of the change process all three schools were endeavoring to develop professional learning communities. Much of the literature relating to change management and curriculum change (Earl & Timperley, 2009; Fullan, 2003; Fullan & Hargreaves, 2002; Ministry of Education, 2007; Southworth, 2002) discusses the need for a strong school culture and an environment in which learning and change can take place. The development of a professional learning community is one way of developing a school culture that is conducive to large-scale change.

Many of the principals and teachers talked about building school culture and professional learning communities in their schools. Most did not use the term ‘professional learning community’, but described many of the components of such communities. In this section the theme of learning community has been split into four sub-themes: developing a learning community, reflective practice, outside advice and seeing other schools in action, and community involvement.

Timperley et al. (2007), discovered that learning communities that gave teachers opportunities to process new understandings and their implications for teaching, were able to introduce new perspectives and challenge previously held beliefs. Such communities had a major focus on teaching and student learning, and were the most successful at improving outcomes for children. Through this study all schools have created their own learning communities which have encouraged staff to focus on improving teaching and learning.

Developing a learning community

All of the principals had taken time to develop strong relationships with their staff. They had managed the implementation process well, by having clear direction and not rushing the process, which are critical aspects when developing a professional learning community. DuFour et al. (2008), describes a learning community as, “educators committed to working collaboratively in ongoing processes of collective inquiry and action research to achieve better results for the students they serve” (p. 14).

Through each school’s curriculum development, all staff worked collaboratively while developing, trialing, and modifying their thinking, ideas and practices. All teachers and principals were encouraged, and given opportunities to participate in professional conversations, develop and trial new ideas, observe other’s teaching, take ownership of the change process, and reflect on their own practice. Principals reported that these opportunities resulted in improved outcomes for children. Principal B encouraged her staff to talk - “trying to get that dialogue happening and get people really thinking about and reflecting on their practice”. Kaagan and Headley (2010) explain that professional

conversations are at the heart of an effective professional learning community. Staff need time to talk and learn. In all three case schools this had been promoted and allowed to happen. As part of these conversations teachers and principals were able to reflect on their practice.

Reflective practice

Reflection is an important part of teaching, learning and change. Through the implementation process at all three schools, teachers and principals reflected on what they had been doing in the past, as well as trialing new ideas and reflecting on these, as they continued to improve their practice. The NZC (2007) suggests that, “effective pedagogy requires that teachers inquire into the impact of their teaching on their students” (p. 35). Teaching as inquiry is described as a cyclic process where teachers continually reflect on the impact their teaching is having on the children in their charge. As this cycle continues, teachers modify or change their practice, if necessary, to continually improve their own teaching and, as a result of this, improve outcomes for children.

All three schools have been working on implementing their curriculums. As part of this process much professional development has been focused on improving teachers’ and principals’ pedagogical understandings. This improved understanding of how children learn has enabled more robust reflection and discussion amongst staff.

All three schools discussed on-going reflection on their curriculum development work. Principal B described how she and her staff often tried a new idea or implemented a new document, then evaluated it and reflected on its place within the NZC (2007), their localized curriculum and children’s learning. She discussed the need for the new practices to fit in with the school’s values and beliefs. In fact all three principals and Teacher B discussed the need to reflect and evaluate current teaching practices and whether or not those practices aligned with the schools values and beliefs and the NZC (2007). This resulted in some practices being abandoned, as they no longer met the school’s requirements. During this process of learning and reflection, two of the three

schools enlisted the help of Ministry of Education advisors, and all schools went and visited other schools.

Outside advice and observing other schools in action

Schools A and B had worked with advisors from the Ministry of Education to plan and implement a professional development programme to develop their localized curricula. Principal B described her experience with the school's main advisor as being very positive, through the advisor "not doing PD (professional development) *to* us, but working together *with* us".

Schools A and C took their teaching staff on tours of schools in the North Island. They did this to show staff examples of how curriculum could be implemented and practices that could be employed, and to provide examples of schools that were further along the implementation process. Both principals A and C said that trips had been very worthwhile and had helped foster further professional conversations and thinking. Principal A discussed the importance of getting ideas from the schools that were visited but not duplicating those ideas exactly. He believed that if schools take existing practices from other schools, and apply them directly in their existing form, they run the risk of the idea or practice not truly fitting in with their school's values and beliefs, and that the idea would lack ownership from staff. Principal A worked with his staff to look at, and collect, lots of ideas from the different schools they visited and then pick out and remodel the ideas that suited their school, and in particular their students needs.

Through the curriculum change process, schools have been involved in collecting information from advisors and seeing and talking to other schools. Another important part of curriculum change is involving the school community in the process.

Community involvement

One of the principles outlined in the NZC (2007) is that of community engagement. This is when a school "...engages the support of their families, whanau, and communities" (p. 9). The NZC (2007) also states in relation to the development of school values

“...individual school(s) will be guided by dialogue between the school and its community” (p. 10).

All case study principals had meetings with the community to discuss and consult on different curriculum matters. All three schools involved parents in the development of the schools values. However, the amount of interest in consultation meetings varied from school to school, with school C having a very high number of attendees at consultation meetings and schools A and B having lower numbers than they had hoped.

All principals used opportunities to talk with their communities as a chance to educate parents about what the school was doing in relation to 21st Century learning. “I think our parents live in nostalgia land and actually don’t understand what we’re doing in schools today, so we use it (meetings/consultation) for a dual purpose” (Principal C). The dual purpose Principal C was referring to is that of community consultation and education. All principals discussed how parents have been to school and their experiences have a major influence on what they think should be happening in schools now. Principal A stated:

“ If you ask parents what they want to see taught, which is not a bad question, they would go back to what they were taught regardless of whether they were successful with that or not. They stick to the known”.

For this reason all principals were careful about how they consulted with parents in relation to teaching and learning. Principal B discussed the fact that teaching staff need time to grasp the new concepts and ideas outline in the NZC (2007), and that it was unrealistic for parents to understand instantly. She believed that consultation and parent education would be an ongoing process.

Teaching and Learning

The introduction of the new New Zealand Curriculum has meant changes in the way teaching and learning occurs in some classrooms. For the following section the theme of teaching and learning has been split into six parts: values as a starting point for

implementation, NZC principles, developing a common language, inquiry learning, learning coverage to depth of learning, and knowledge transfer.

Values as a starting point for implementation

Atkin (1996) describes schools that are guided by a values and beliefs system. That is the school aligns everything they do with what they collectively value and believe about education. The school formulates a shared vision, as well as shared values and beliefs. Practices that are used within the school are aligned with the schools vision and what the school collective values and believes about effective and meaningful education. All of the participating schools started the implementation process by co-constructing shared values and beliefs about education. These values were shared with the children, staff and community, and all schools focused on developing shared language and ways of ‘living’ the school’s values. Principal B explained that when they are making decisions in the school they ask themselves “does this fit with what we value and believe about teaching and learning at our school?” The NZC (2007) states in the values section that the school’s values should be “encouraged, modelled and explored” (p. 10). The schools in this study were all specifically teaching, modeling, exploring and encouraging their school values, and therefore were acknowledging these as overarching criteria.

After values and beliefs had been established, the implementation of these varied among the schools. School A focused next on the NZC (2007) principles. Schools B and C used the principles while developing their values and beliefs and then they moved on to developing the key competencies. Schools B and C used the principles outlined in the NZC (2007) throughout the entire implementation process. School A did not use the NZC principles when they were developing values and beliefs. However, as soon as the importance of the principles was known to them, they went back and redid some of their values and beliefs work and then referred to the principles in all subsequent curriculum development.

NZC Principles

The NZC (2007) identifies eight principles of high expectations. These include learning to learn, Treaty of Waitangi, community engagement, cultural diversity, coherence, inclusion, and future focus and these “should underpin all school decision making” (p. 9). All teachers and principals in this study knew that the principles of the document should form the framework for all curriculum work, and these schools actively used and referred to the principles when developing their localized curriculum. Principal C stated:

“They (principles) give us something to aspire towards, but predominantly they are to underpin everything. It’s about who we are as Kiwi’s. It’s about who we are as a nation, and they are what make us unique as New Zealanders, and therefore require a good amount of thought and understanding about how they might be expressed in what we actually do in the classrooms”.

Principal B explained that everything relating to curriculum work needed to link back to the principles and reflect them. All participating schools stated that they referred back to the principles when developing school curriculum documentation.

Developing a common language

At the beginning of the implementation process each school developed shared values and beliefs about education. This was the start of a common language being developed in each school. The NZC (2007) mentions that the values should be “encouraged, modelled and explored”(p. 10). In order for this to happen effectively, everyone in the school community must have a shared language to discuss their understandings. All participants expressed the importance of the values being lived and talked about at the school.

Having a centralized NZC (2007) provides a common language for teachers, through reference to concepts such as the curriculum’s principles and key competencies. Principal C referred to teachers having what Lester Flockton refers to as cognitive portability (New Zealand Education Institute, 2009). That is the ability to carry information around in your head. Having a common language helps with cognitive portability and when having

professional conversations. Teacher C discussed the need to understand teacher jargon when having professional conversations and that teachers need to use the same terms to avoid confusion. Principal C discussed the importance of a shared language when dealing with children and staff. He described a child's journey through school as that of a rollercoaster ride with different teachers having a different language for dealing with situations. He discussed the need for consistency when talking about the school's values, understanding and implementing an inquiry model, how they deal with behaviours and generally interact with children.

The use of an inquiry learning model has also introduced further common language in these schools. All schools in the study had similar inquiry learning approaches and appeared consistent in the language they used.

Inquiry learning

All participating schools used an inquiry-learning model that they had adapted to suit their school. Friesen (as cited in Herrick, 2009) defines inquiry-based learning as,

“A constructivist approach in which students have ownership of their learning. It starts with exploration and questioning and leads to investigation into a worthy question, issue, problem or idea. It involves asking questions, gathering and analyzing information, generating solutions, making decisions, justifying conclusions and taking action” (p. 4).

Teacher A discussed the school's move to an inquiry process as enabling her and the children to develop a more in-depth learning experience, where the children are leading their own learning. Principal A explained that the inquiry learning process focused on the children's needs, not on coverage of achievement objects. This style of learning was consistent with the school's values on education.

Teacher B felt that using an inquiry-based approach allowed teachers to focus on teaching concepts and skills not just content knowledge. She felt that 'inquiry' was a way

of teaching children how to find out, ask questions and explore. The ideas expressed by teacher B were shared by the other teachers and principals in this study and are consistent with the pedagogy section in the NZC (2007).

From coverage of learning objectives to depth in learning

The NZC (2007) has enabled schools to develop localized curricula, which focus on what they see as important for the children in their communities. The focus has changed from covering all curriculum objectives to that of providing deep, meaningful learning experiences for children (New Zealand Education Institute, 2009). All participating principals and teachers saw this as a major change from the previous curriculum and saw it as a very positive move forward. In each of the participating schools, the one and two page statements for each learning area in the NZC were referred to as “essence statements”. These were used to guide, curriculum development in each learning area, and to guide planning for teaching and learning.

The NZC (2007) outlines the main ideas and concepts that should be present in each learning area in order for a quality learning programme to take place. These ‘essence statements’ were used to help develop learning statements in case schools and used to shape school curriculum. School B used the essence statements to help plan learning and then choose achievement objectives that fitted that learning. Principal B explained that this was a different way of working to the previous curriculum where they chose achievement objectives first and then worked out how they would meet those objectives. She felt that the new NZC (2007) allows teachers to better meet the needs of students, by moving away from achievement objective coverage.

All participants talked about the need to focus on developing literacy and numeracy within their schools. They felt they could now do this better as they no longer had the pressure of covering all the achievement objectives from other curriculum areas. All schools were able to integrate some learning areas and develop learning programmes that they perceived to better meet the needs of their children.

As the pressure of covering all achievement objectives over a two year period has been lifted by the introduction of the NZC (2007), teachers have been able to focus on developing programmes of work which develop skills, and knowledge that are valued by the school and community. It was evident from interviewing teachers and principals that children were taught, and learning facilitated, in such a way that learners were able to deepen their understanding of a topic or skill. This was achieved partly through the use of an inquiry model and teachers' developing ability to question children. Often, as a result of this deepened understanding, children were more able to transfer that knowledge to different situations.

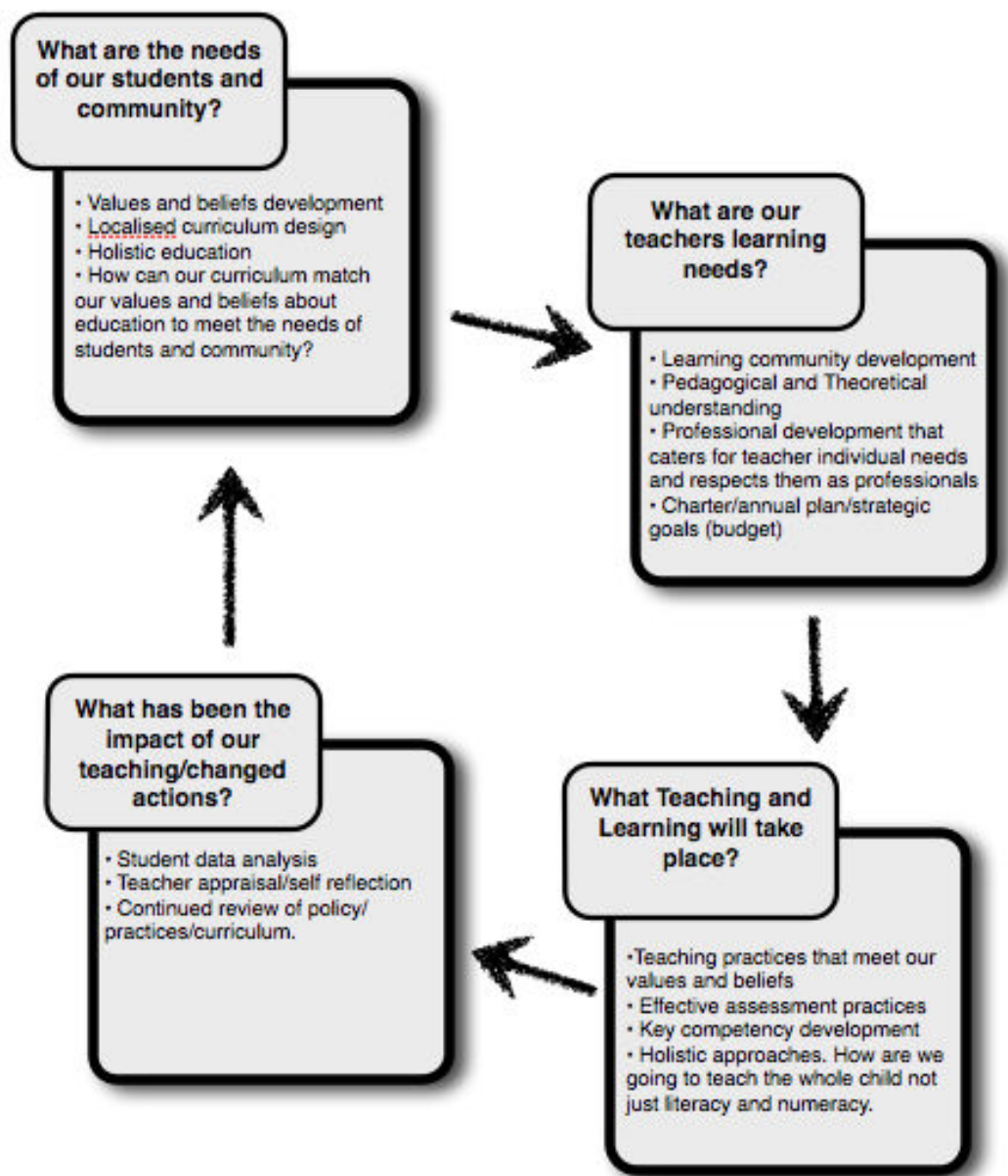
Knowledge transfer

Gilbert (2005) explains that the concept of knowledge is changing from that of a *noun* where knowledge is seen as a thing that can be added to, to "increase knowledge", to a *verb* where knowledge is something we do, or a skill we are able to transfer to new and different situations in order to 'know' or understand new things. Complementing Gilbert's (2005) theory, Principal A observed a change in the children's ability to transfer knowledge and skills from one learning situation to another. He attributed this improvement to the increase use of inquiry-based learning. Teacher B thought that children were able to 'know' and express their knowledge in different ways. By doing this they were able to transfer that knowledge more easily as they had their own way of understanding. The NZC (2007) and the new school curriculums have allowed teachers to be more flexible in the way they teach, and what they teach. All participating schools had topics of longer duration and were focused on deep learning, which enabled skills and knowledge to be taught or discovered.

Through this section I have discussed the main themes of curriculum change, professional learning communities, and teaching and learning. This discussion has given further insight to how the three case schools have implemented their localized school curricula, and some of the effects this implementation has had on teaching and learning.

Through this research I have identified links between the case schools, the literature and the NZC (2007). I have adapted Timperley et al.'s (2007) 'Teacher inquiry and knowledge-building cycle to promote valued student outcomes' diagram, to represent an effective model of curriculum implementation. This cyclic model represents the findings of this study, that the development of curriculum is an ongoing process, not something that will ever be completed.

Curriculum Development and Review



In conclusion

In all schools strong leadership was a key factor in the curriculum implementation process. All teachers and Board of Trustee participants commented on their principal's ability to lead, and their ability to work with staff to implement change. Fullan and Hargreaves (2002), and Robinson (2004), discuss the need for strong capable leadership if effective, long lasting change is going to occur. All Board of Trustee participants trusted the principal and staff to implement the NZC (2007). Board member C had an excellent understanding of the NZC due to her wider involvement in education. Board members A and B did not have a very good understanding of the NZC but trusted the principal and staff to implement it effectively.

As suggested by Akins (1996) all participating schools started the implementation process by developing values and beliefs about education. The values and beliefs formed by the schools were then used extensively throughout the change process, with schools referring back to them and making sure their curriculum decisions aligned with their shared values and beliefs about education. The principles outlined in the NZC (2007) were also used by all participating schools to guide curriculum development. The NZC principles were referred to and participants made mention of their importance, however, each school appeared to focus more on their own collectively formulated values and beliefs. It was apparent that these were more of an influence on each school's curriculum development than the NZC principles.

All three schools shared their values and beliefs with the community and children at the school. The values were 'encouraged, modelled and explored' (Ministry of Education, 2007 p.9) by all schools. Graphic representations, such as posters and signs, of the values were evident in all participating schools. School C used the acronym PRIDE and principal C talked extensively about the schools PRIDE values.

Much of the research and literature on 21st century teaching applies across all sectors, not just primary schooling. Currently there is a focus in primary education on literacy and numeracy skills. The importance of these subjects has been emphasized by the

introduction of National Standards (Ministry of Education, 2010), the literacy progressions (Ministry of Education, 2010), and the numeracy development project (Ministry of Education, 2007). In order for successful inquiry learning to occur, students need a sound grasp of mathematical concepts and fundamental literacy skills. Hence the current focus on the development of both literacy and numeracy skills.

Through this chapter the themes of curriculum change, learning communities, and teaching and learning have been discussed in order to further illustrate the understandings and experiences from three primary schools through their curriculum development experience.

Chapter 6

Conclusion

In this chapter I will revisit some of the findings in this research. I will start with an overview of the study, followed by the key outcomes, limitations, implications resulting from this research and possible further areas of study.

Through this study I have attempted to provide rich descriptions, from three case schools, of how the new New Zealand Curriculum (2007) has been implemented and how this implementation has impacted on teaching and learning. This study has illustrated the understandings and experiences of each of the case study participants and outlined changes to each school's approach to teaching and learning.

For this research, a qualitative methodology was adopted and semi-structured interviews were used to gather data from the nine participants. Three case schools participated in the study with the principal, a teacher and a board of trustee member being interviewed from each school.

This study had a small sample size of only three schools and nine participants. Therefore the results from this study cannot be seen as 'typical' of all schools in New Zealand. The participating schools were not representative of all schools, as schools were chosen using purposive sampling meeting the criteria of being a decile 8, 9, or 10 school, having a roll of 200 or more, and being on target to meet NZC implementation by 2010. Throughout this study the participants were open and honest in their discussions with me, which increases the likelihood of data collected being reliable and trustworthy. Although the sample was small, a number of the findings and implications could be transferred and related to other schools in New Zealand.

Several key outcomes emerged from the results and discussion sections of this study relating to how schools are implementing the NZC (2007). It was evident that all schools used a values-based model as a starting point for implementation and continued to use

this throughout the process. Strong leadership was seen as critical for effective change, and in all cases curriculum change was led by the principal. A positive school culture was seen as imperative to effect change. Two of the three teachers and all of the principals in this study saw the need for a complete change in thinking about teaching and learning and used the opportunity presented by a new curriculum to help achieve this. Because change processes are complex, principals and teachers emphasized the need for time to implement sustained change. Schools were all moving away from coverage of achievement objectives to focusing on deep learning experiences for children and how children can transfer knowledge from one situation to another. The final outcome was that curriculum implementation will be an ongoing process of review and refinement in each of the case study schools.

All participating schools were positive about the New Zealand Curriculum and the direction it was taking their schools. The findings in this research support current curriculum theory and show that participating schools are moving towards teaching and learning models that support the needs of our current generation of learners. The tension between primary schools need to focus on literacy and numeracy, and what many educationalists believe schools need to do to meet the needs of a rapidly changing society, leads to further questions and possible research.

Through the process of completing this research project, four further possible areas for investigation have emerged.

1. *Primary school change and where the balance lies between new educational thinking and teaching 'the basics'.*

There are conflicts between the belief that a solid grounding in literacy and numeracy are an essential aspect of a quality education, and some of the key research findings on the knowledge skills and attributes required for work in our current environment. How much time should teachers be devoting to literacy and numeracy teaching and how can these skills be incorporated successfully into other curriculum areas, particularly in relation to inquiry learning?

2. *Conflict between the introduction of national standards in literacy and numeracy and the New Zealand curriculum.*

It appears that the philosophies, theories and educational understandings used to develop the NZC almost contradict those used to develop the national standards. These two documents are legislated and must be implemented in schools. Conflict may arise as the requirements of the two documents potentially work in opposition to one another. How is the conflict from the differing intents of the NZC and the national standards impacting on localized school curriculum?

3. *Curriculum implementation in secondary schools, what's actually happening?*

Secondary schools are generally structured and managed differently to primary schools. They are constrained by national testing for students from years 11-13. How are these constraints impacting on implementation of the NZC (2007)?

4. *Changes in teaching practices, and learning for children, ten years after the implementation of NZC (2007).*

We are still in the early years of the NZC. A longitudinal study may show continued change over time and give a better picture of the true impact the new NZC has had and is having on teaching and learning.

Educators need to continue to focus on the needs of learners in the 21st century. This will require continued review and refinement of teaching and learning practices. In order for this to be effective, educators need to become (if they are not already) life-long learners and continue to research, read and learn about current educational theory and practice. Teachers need to change their thinking about what teaching and learning is and how education can meet the needs of students in our current and ever changing society. This necessitates skills in designing learning programmes that cater for children's needs and further develop their talents and interests. Professional learning communities are one way that schools can create an environment for this to happen.

Through the results and discussion section of this study it has become apparent that curriculum development and teacher development is an ongoing process. To support the

process of curriculum and teacher development, the Ministry of Education could develop and implement professional development contracts for schools that are based on holistic education, creativity and thinking/problem solving, not just narrow curriculum areas and 'raising achievement'. This would help teachers identify children who were gifted and talented in the full range of curriculum learning areas, not just numeracy and literacy, as well as looking at alternative ways of teaching children who learn differently and do not 'fit in' to our current way of teaching. This would help with the paradigm shift that is required if schools are going to develop the knowledge, skills and attributes our current generation of school children require. The Ministry of Education needs to offer ongoing support for schools in resourcing and professional development. This includes the provision of flexibility in the type, delivery and construction of professional development to meet the needs of individual schools and teachers within those schools. The change process including professional learning and school development is ongoing and does not stop at the end of a two year Ministry contract.

The Education Review Office (ERO) must continue their current shift to focus more heavily on the teaching and learning happening in classrooms and less on compliance, and written curriculum documentation. Throughout this research, it became apparent that the curriculum 'lives', in classrooms not on a shelf. Through the identification of 'expert' teachers, more knowledge and teaching skill could be shared.

Developing effective schools and classrooms that will meet the needs of the current school generation was a key outcome in this study. Much work is being done in schools to change the way education happens for children. I believe that teacher training providers must work more closely with schools, and bring 'expert' teachers and forward thinking educators into their institutions to share the practical realities of teaching and learning.

The three participating schools in this study have welcomed the New Zealand curriculum (2007). They have worked hard with staff, children and community to develop curricula that fits with their values and beliefs and those of the communities they teach in. They

have used the NZC (2007) extensively, including the principles, to guide curriculum implementation. All three schools had many similarities in the way they have gone about implementation but are not 'clones' of a centralized model. Each school has its own identity and their curriculum reflects the needs, values, and beliefs of staff, children, and community. This study has shown that the participating schools are moving towards teaching and learning practices that will equip children with knowledge skills and understandings that meet the needs of children now and into the future. All the schools emphasized the need for continual review, refinement and improvement in order to continue to meet the changing needs of the children in their schools.

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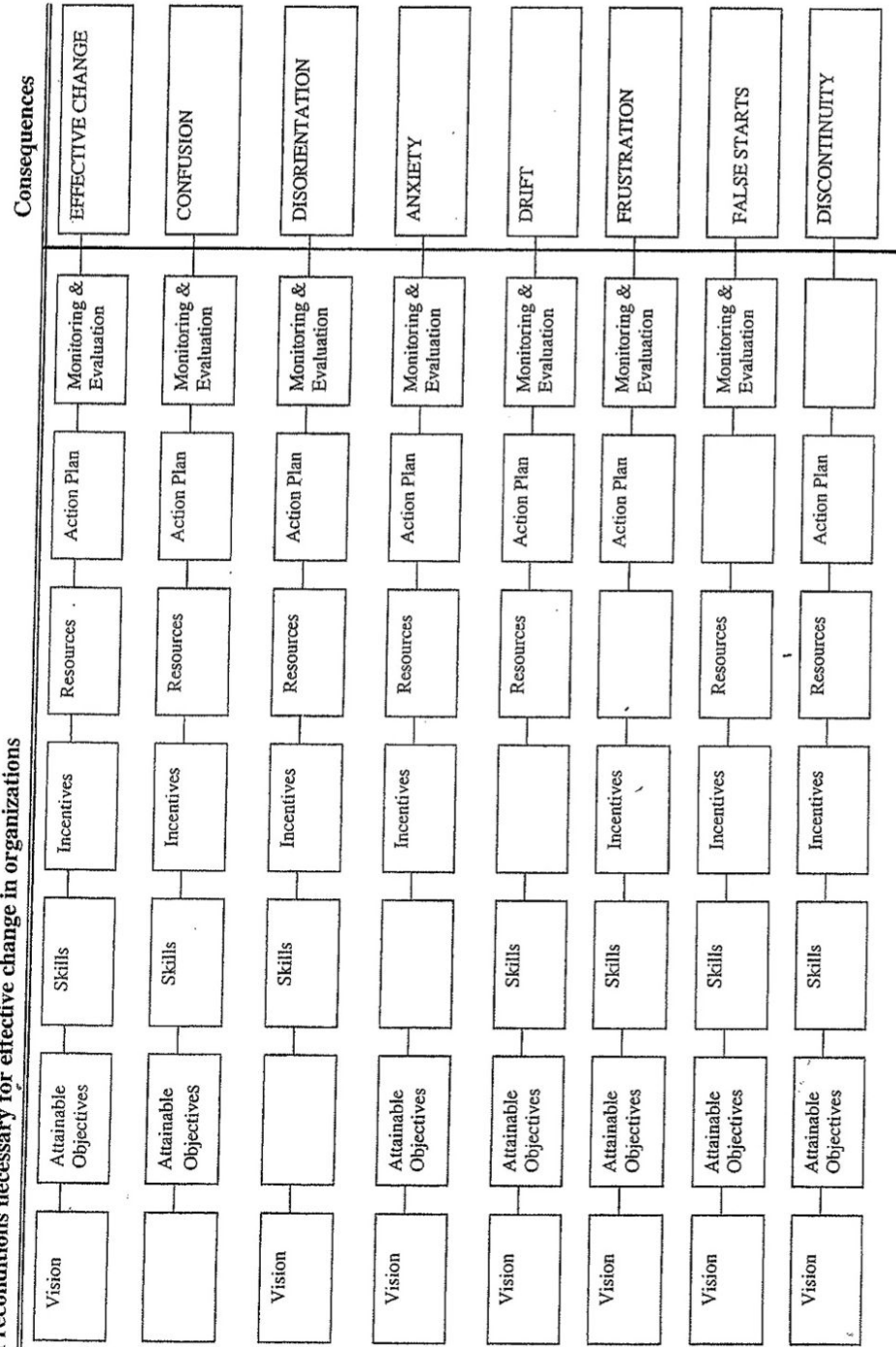
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MANAGING CHANGE

Preconditions necessary for effective change in organizations



F I Renihan 1998

Information for BoT and staff member participants

Dear #####,

I am working towards a Master of Education degree at the University of Canterbury. As part of my study I am required to undertake a research thesis. I will be working under the supervision of Dr Barry Brooker, Associate Dean and Head of Primary Education at the University of Canterbury and Dr Vanessa Andreotti, Senior Lecturer, School of Maori, Social and Cultural Studies.

The principal of your school suggested you as a candidate for this study and I would like to formally invite you to participate. The working title of my project is, *'Implementing the 2007 Curriculum in New Zealand Primary Schools'*. As part of my research, I am seeking: information on how schools are implementing the new curriculum with a focus on the principles in the new document; perceptions of the new curriculum; and how the implementation has impacted on schools and teaching and learning.

If you agree to participate in this study I will conduct an individual interview with you, which should take approximately 30 minutes. This interview will be recorded and notes taken during our discussion. This will be conducted at a time and place mutually acceptable to both of us. The findings from this research will be shared with you once the final report has been completed.

Data collected from this interview will remain strictly confidential, raw data will be held securely for 5 years after the completion of the research and then destroyed. No findings that could identify either you or the school will be published and your individual answers will not be read or heard by anyone except me. Participants and schools will be given pseudonyms or numbers in the final research report. As the principal of your school suggested you for this research he/she may be able to identify your responses in the final report.

The results of this study may be submitted for publication to national or international journals or presented at educational conferences. The final thesis will be held as a public document in the university library.

Participation in this study is voluntary. If you do choose to participate you can withdraw from the study at any time without penalty. You may also choose not to answer any question I ask you.

A University Ethics Committee has reviewed and approved this study.

The University requires that all participants be informed that if they have any complaint concerning the manner in which a research project is conducted, it may be given to the researcher, or, if an independent person is preferred, to:

Dr. Missy Morton
Chair
Ethical Clearance Committee
College of Education
University of Canterbury
Private Bag 4800
Christchurch 8140

Please contact me if you have any other queries or concerns about the project or alternatively contact my supervisors, Dr. Barry Brooker or Dr. Vanessa Andreotti.

Thank you in advance.

Robert Naysmith

Declaration of Consent – Teachers and BoT

I consent to participate in the project, *‘Implementing the 2007 Curriculum in New Zealand Primary Schools’*.

I have read and understood the information provided to me concerning the research project and what will be required of me if I participate in the project.

I understand that the information I provide to the researcher will be treated as confidential and that no findings that could identify either me or my school will be published.

I understand that my participation in the project is voluntary and that I may withdraw from the project at any time without incurring any penalty.

Name _____ Date _____

Signature _____

Information for Principal Participants

Dear #####,

I am working towards a Master of Education degree at the University of Canterbury. As part of my study I am required to undertake a research thesis. I will be working under the supervision of Dr Barry Brooker, Associate Dean and Head of Primary Education at the University of Canterbury and Dr Vanessa Andreotti, Senior Lecturer, School of Maori, Social and Cultural Studies.

The working title of my project is, *'Implementing the 2007 Curriculum in New Zealand Primary Schools'*. As part of my research, I am seeking: information on how schools are implementing the new curriculum with a focus on the 'principles' in the new document; perceptions of the new curriculum; and how the implementation has impacted on schools and teaching and learning.

I would like to invite you to take part in this study. If you agree to participate I will ask you to suggest a teaching staff member and Board of trustees member who could be contacted and invited to participate also.

I will conduct an individual interview with you, a member from your Board of Trustees and a teaching staff member. Each interview should take approximately 30 minutes. These interviews will be recorded and notes taken during our discussion. This will be conducted at a time and place mutually acceptable to both parties. The findings from this research will be shared with you once the final report has been completed.

Data collected from this interview will remain strictly confidential. Raw data will be held securely for 5 years after the completion of the research and then destroyed. No findings that could identify either you or the school will be published and individual answers will not be read or heard by anyone except me. Participants and schools will be given pseudonyms or numbers in the final research report. As you will be suggesting further participants for this research please be aware that the suggested participants may be able to identify your responses in the final report. For this reason complete anonymity cannot be guaranteed.

The results of this study may be submitted for publication to national or international journals or presented at educational conferences. The final thesis will be held as a public document in the university library.

Participation in this study is voluntary. If you do choose to participate you can withdraw from the study at any time without penalty. You may also choose not to answer any question I ask you.

A University Ethics Committee has reviewed and approved this study.

The University requires that all participants be informed that if they have any complaint concerning the manner in which a research project is conducted, it may be given to the researcher, or, if an independent person is preferred, to:

Dr. Missy Morton
Chair
Ethical Clearance Committee
College of Education
University of Canterbury
Private Bag 4800
Christchurch 8140

Please contact me if you have any other queries or concerns about the project or alternatively contact my supervisors, Dr. Barry Brooker or Dr. Vanessa Andreotti.

Thank you in advance.

Robert Naysmith

email Ph: ##### or #####

Declaration of Consent -Principal

I consent to participate in the project, *Implementing the 2007 Curriculum in New Zealand Primary Schools*.

I have read and understood the information provided to me concerning the research project and what will be required of me if I participate in the project.

I understand that the information I provide to the researcher will be treated as confidential and that no findings that could identify either me or my school will be published.

I understand that my participation in the project is voluntary and that I may withdraw from the project at any time without incurring any penalty.

I consent to the researcher contacting a member of the Board of Trustees and a teaching staff member to participate in this research project.

Name _____ Date _____

Signature _____

Interview questions for all participants:

Demographics:

- Position BoT – Job?
 - Number of years teaching/on Board
 - School size and decile
-
1. Do you believe a revised curriculum was needed? Why?
 2. How have you gone about implementation? Where did you start? (principles, values, why?) Where are you up to? Where next?
 3. What is your understanding of the ‘principles’ in the New Zealand Curriculum?
 4. To what extent have the principles of the NZC influenced curriculum development within your school?
 5. To what extent have the community been involved in the process?
 6. Who are the leaders of curriculum change at your school?
 7. What have been the major challenges so far when implementing the curriculum?
 8. How has time been made available for staff to discuss/formulate and implement the curriculum? Has this been effective/useful?
 9. Has extra PD been used to support curric implementation? What was it?
 10. Has current PD aligned with revised curriculum ideas.
 11. What have been the impacts of implementing the new curriculum?
(teaching/learning, admin, resourcing, documentation etc)